Medical Library

The ILLINOIS Medical Journal

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OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY

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The Illinois Medical Journal

October, 1945

VOL. 88, NO. 4

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

BACK TO NORMALCY

Now that the war is actually, even though not officially ended, the American people as a whole are anxious to see as quickly as possible, a return to normalcy. We are led to believe that the government was not expecting the sudden end of hostilities, and was not prepared to launch immediately the planned reconversion program.

With perhaps more than 12 million men and women in uniform, it is unquestionably a big task to get those who can be spared from further service back home. With approximately 62,000 medical officers with our armed forces, it is planned to release 13,000 by the end of the present year and perhaps an additional 17,000 within less than one year.

The physicians who had been in civilian practice left their work at the call of their country without regard to their practice or their future. They were inspired by the word that thousands of medical officers were needed to care for the large number of men under arms. That their services were used to good advantage is shown by the lowest mortality and morbidity rates ever known in modern warfare.

NEED ILLINOIS PHYSICIANS AT HOME

In Illinois, as in other states, so many physicians entered the services that many communities needed medical personnel. Only through the increase in patient loads, longer hours, and less time off from professional duties, were the remaining civilian physicians able to give adequate wartime medical care.

At a meeting of the Council of the Illinois State Medical Society held in Chicago on September 23rd, a resolution was passed which instructed the secretary of your society to notify all Illinois physicians in service that this Society was anxious to see all of them returned to private practice as soon as possible, and that every effort will be made that is within our power to accelerate the present program adopted for the release of physicians from service for the purpose of making adequate the medical service throughout Illinois.

The resolution as it was presented and adopted by the Council is as follows:

WHEREAS, approximately one-third of the physicians of the State of Illinois are now in service in the armed forces of the United States; and

WHEREAS, practically all of these officer physicians constitute most of the younger and more active members of the profession in the State of Illinois; and

WHEREAS, the loss of this medical manpower has placed a heavy burden on the older physicians of the State of Illinois and has also deprived many areas of the state of adequate medical services; and

WHEREAS, it has come to the attention of the Council of the Illinois State Medical Society that perhaps many of the physicians now in the armed forces could be released for return to private civilian practice in areas where medical service is sorely needed;

THEREFORE, BE IT RESOLVED That the Council of the Illinois State Medical Society request the Congressmen and Senators from the State of Illinois to interview the medical departments of the

various branches of the armed forces as to the feasibility of immediate acceleration of the present program adopted for the release of physicians from service for the purpose of making adequate the medical service in certain areas; and

BE IT FURTHER RESOLVED That a copy of this resolution be sent to each physician of the State of Illinois who is now in service of the armed forces.

Efforts will be made in every county to see that former patients return to their physician who responded to the call of his country for medical voluteers.

Many Illinois physicians had just finished internship or a residency when they were called into service, and had not yet opened an office for the practice of medicine. Information is being accumulated and will be maintained within the Society offices to give all possible aid to these returning veterans who desire information relative to a suitable location for practice.

Our medical schools are arranging refresher courses and complete information concerning these activities will be published regularly in the Illinois Medical Journal.

Physicians everywhere are anxious to see all medical officers desiring to be released from service to go into private practice, released as soon as possible. We all realize of course, that it will be necessary for the medical corps of the army, navy and public health service to maintain a sizable medical corps for some time to come.

Many letters have been received from medical officers stating that they not only want to come home to get back into civilian medical practice, but that they want something to come home to. Invariably they state that they do not want to participate in a federalized medical care program, and are willing to do their part in seeing that all of the people, regardless of financial status, receive adequate medical care.

Statistics and medical history alike show without question that where medical care is given through private initiative and unhampered by regimentation, the peeople receive better care and the total expense is lower than under any politically controlled plan.

MEDICAL PLANS IN ILLINOIS

At the present time a careful survey of all existing hospitals throughout Illinois, the current as well as the future needs of each community, is being made by the State Department of Public

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Health. In many communities either new hospitals are being planned, or additions to existing facilities are contemplated.

Most physicians are favorable to the development of prepayment plans for medical care for those in low income groups, but invariably all insist that these plans be conducted entirely on a voluntary basis.

It is also generally believed that only the residents of individual communities are capable of determining local needs, and that this cannot be done properly in any central office.

The Illinois State Medical Society has studied intensively during the past year the subject of prepayment plans for medical care, and it is believed that within a relatively short time, such a plan will be instituted in Illinois.

Throughout the war all physicians have cooperated in every way possible, both in the field and in civilian life, in the united effort to win this war. Physicians have been liberal purchasers of war bonds and they will continue to be during the final drive for our Victory Loan. They have given their services freely to all of the people regardless of their means. In most communities the interests of those absent physicians have been protected, and the officers will be welcomed home. Like all other patriotic citizens, physicians are anxious to see an end to unnecessary spending, a reduction from the all time high in wartime taxation, and as early a return of our men in uniform as is consistent with government demands for armies of occupation, and other essential needs.

ILLINOIS NATIONAL PHYSICIANS COMMITTEE

For a number of years the National Physicians Committee for the Extension of Medical Service has been functioning faithfully in its endeavor to enlighten the public concerning contributions which American Medicine has made and is making in behalf of the individual and the nation as a whole. The activities of this Committee have been endorsed by the House of Delegates of the American Medical Association and by most, if not all, of the component state societies. Official approval of activities was given by the Council of the Illinois State Medical Society in 1943.

At a meeting of the Council held in Chicago on July 29, 1945, a resolution was adopted whereby the Council approved the formation of an Illinois National Physicians Committee, the members of the Council to act as the control, or state committee. It was recommended that each Councilor District be organized to form committees with the Councilor in each District acting as chairman, and appointing representatives from various parts of his district to compose the personnel of this group of sub-committees. It was further recommended that each county medical society set up an N. P. C. committee, but to date we have not requested this action in Illinois.

The organization in Illinois is now complete and we are publishing it in full for your information.

The "control" or state committee is composed of members of the Council and the personnel is as follows:

E. P. Coleman, Canton — President of the State Society
R. S. Berghoff, Chicago — President-elect of the State Society and Secretary-Treasurer of the N.P.C. committee
Harold M. Camp, Monmouth — Secretary of the State Society

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A meeting was held in Chicago on Sunday, September 23rd, with representatives of the Councilor district committees present from each district in Illinois. There were approximately 60 present to receive information as to what is expected of the committee personnel collectively and individually. Many questions came up for discussion during the conference.

The National Physicians Committee for the Extension of Medical Service is to be congratulated for the work they have done and for their present activities. It is most timely that a suitable organization has been perfected in Illinois as has been done in many other states, to aid in these activities.

THE VICTORY LOAN; LET'S FINISH THE JOB

The Victory Loan Drive will be under way on October 29, and end December 8. The total amount expected from the drive is 11 billion dollars, the quota for individuals being $4 billion — $2 billion for E-bonds alone. Along with other members of the American public, physicians throughout the country have subscribed freely in the seven war loans and there is every

reason to believe they will again do their share in bringing he Victory Loan drive over the top. This will be the last of the war loans and it is quite obvious that the Government needs the money for specific purposes which are essential for the best interests of the country as a whole.

One of the biggest expenses for years to come will be the care of the wounded and the rehabilitation of veterans. Although the war is over so far as actual combat is concerned, there are hundreds of thousands of casualties many of whom will need prolonged care at Government expense. Huge sums of money are necessary to pay for war materials which were contracted for, produced and delivered months ago. Some contracts are being canceled and payment must be made to contractors for losses suffered. The sudden ending of the war was unpredictable, and many contracts for enormous amounts of materials had been made prior to its end, as every effort was being made to completely overcome the enemy with a minimum loss of life.

The expense of getting the millions of men home likewise is a big expense to the Government, and will require a considerable amount of money which the American people are willing to invest through bonds, for this important purpose. We owe a big debt to these fighting men who fought in combat, many receiving injuries, and will bear permanent disabilities throughout life. We cannot do too much for these brave men. It is well known that Government investments are the safest investments that can be made. Buy bonds and hold on to them until maturity, and you will be helping your Government the best way possible.

The Victory Loan officially begins October 29, and bonds can be bought in every Community throughout the United States. By buying them at home, credit will be given to your home community and with a spirited rivalry everywhere, it is most likely true that all states, and probably every county will be able to meet its quota, while many others will go well over the top on this last War Loan Drive.

BUY VICTORY LOAN BONDS:
"THEY FINISHED THEIR JOB —
LET'S FINISH OURS".

DOCTOR CITES TWO CASES OF MALARIA CONTRACTED FROM EX-SOLDIER

That the spread of malaria to civilians may have distinct possibilities is pointed out in the June 16 issue of *The Journal of the American Medical Association.*

S. B. Osgood, M.D., of Grants Pass, Ore., reports two proved cases of malaria, and possibly a third, which were contracted from a returned soldier having chronic malaria. This occurred in a rural area entirely free of this disease as far back as official medical records are available. The existence of anopheline mosquitoes, the carriers of the malaria blood parasite, had not even been suspected before the occurrence of these cases.

When anopheline mosquitoes feed on a person whose blood contains the malaria organism, these are drawn with the blood into the insect's stomach. There the parasites undergo certain changes, and after a week or so produce a number of spores. The spores find their way into the insect's salivary glands, and when the mosquito next bites another person, it injects the spores, together with its saliva, under the skin and into the blood—thus infecting the second person with malaria.

In this way, the returned soldier, who had contracted malaria in Australia, became the source of infection of the two Oregon patients. He lived on the bank of Grave Creek and the two patients lived nearby, within the flight range of anopheline mosquitoes. Anophelines were identified among mosquito specimens collected in their homes for investigation.

"It would appear," Dr. Osgood states, "that careful mosquito surveys must be made in this and other districts where climatic conditions permit the existence of anopheline vectors, and that active mosquito control measures must be instituted if an increased incidence of malaria and its establishment in new endemic areas is to be prevented."

State Department of Public Health

PENICILLIN REACTIONS IN THE TREATMENT OF GONORRHEA

Ever since Mahoney et al[1] announced the therapeutic value of penicillin in the treatment of early syphilis, warnings have appeared in the literature[2,3,4] as to the danger of masking or delaying the appearance of a syphilitic infection when penicillin is used in the treatment of gonorrhea. The amount of drug used in treating the latter disease, 100,000 to 200,000 units, is which, it is believed now, requires a minimum of totally inadequate for the "cure" of syphilis at least 1,200,000 units. The subcurative dose of 100,000 to 200,000 units is, however, sufficient to cause the disappearance of spirochetes in a chancre with subsequent healing of the lesion, but this is not to be interpreted as a sign of cure of the syphilitic infection. This warning is clearly demonstrated in a report of Sternberg and Turner[2] concerning a soldier who received 100,000 units of penicillin for a gonorrheal infection. A small ulcer on the frenum, present on the day of penicillin therapy, was not studied by darkfield examination until the following day at which time no spirochetes were demonstrable. Six weeks later the soldier developed a typical darkfield positive chancre at the same location.

Even in the absence of a genital lesion, the patient under penicillin therapy for gonorrhea may have acquired a concurrent syphilitic infection which at the time is in the incubation period. In this event, penicillin may delay the appearance of any manifestations of syphilis for as long as 60 days or may alter the usual course of the infection. As Van Slyke and Steinberg[5] point out, ". . . . .that early administration of penicillin (as in acute gonorrhea) may prevent the development of the primary lesion in concomitantly acquired syphilis, which is later manifested by a secondary eruption or by positive blood serologic reactions."

Chancres may also develop in areas, such as the urethra and cervix, where they are not readily detected and in the event that the blood Kahn is still negative, the syphilitic infection may be overlooked entirely. Such a case, reported by a clinic in 1944, is the following:

A.B., male, 28, married, had a discharge diagnosed as gonorrheal in origin which persisted after two courses of sulfathiazole and one of penicillin. When he reported after receiving a second course of 200,000 units of penicillin, he was found to have a mild eruption suspicious of secondary syphilis. Upon examination, his wife had a typical secondary eruption of longer duration and more marked than the husband. Symptoms disappeared in both cases promptly after beginning arsenical treatment. The medical history of both suggest that the husband probably infected the wife, his secondary symptoms being delayed by the penicillin treatment.

In treating any venereal disease, the physician, of course, should be alert to the possibility that the patient may have contracted more than one venereal disease at the time of exposure. Repeated observations and serologic tests for syphilis over a period of 3 months should be a part of the management of any case of gonorrhea. Now that we have a therapeutic agent effective in both gonorrhea and syphilis, such observation should be all the more rigid especially in view of the possibilities mentioned above.

One sign which should increase the physician's suspicion of syphilis is the development of fever during the course of penicillin therapy for gonorrhea. During the past six months the

attention of the Division of Venereal Disease Control has been directed toward 2 cases in which this phenomenon occurred. Both cases are of sufficient interest and reveal the probable significance of fever.

Case 1. N. W., white female, 19, married. On February 13, 1945 the diagnosis of gonorrhea was based upon positive cervical smears taken by a private physican. At that time the Kahn test was negative. Because the infection failed to respond to sulfathiazole, the patient was referred to the venereal disease clinic on February 28, when she was given penicillin on the basis of the information already known. In two to three hours after the first intramuscular injection of 25,000 units, the patient was emotionally upset and complained of headache, dizziness, nausea and abdominal pain; the temperature was 98.6 and pulse 92. Five hours after the second injection, the patient's temperature rose to a maximum of 104.6 and pulse 144. The Division of Venereal Disease Control was notified of this reaction on the same day and since no similar experience had been reported by other clinics using penicillin, the possibility of a Herxheimer reaction due to undetected syphilis was suggested. An examination on March 3 revealed inflammation of the cervix and vulva and although no chancre or secondary lesions were discovered, the clinician found evidences of a possible pre-existing cervical chancre. Subsequent Kahn tests after March 3 were persistently positive and the diagnosis of early asymptomatic syphilis was established.

Case 2. T.F.B., white female, 21, married. This patient was under the observation of the clinic for repeated gonorrheal infections from April 3, 1944 to April 2, 1945 during which time five Kahn tests were all negative. On April 2, 1945 cervical cultures revealed the presence of gonococci; there was no evidence of syphilis. She disappeared from the clinic until May 4 when she was again referred by the Police Department and at that time she was placed in the hospital for penicillin therapy for untreated gonorrhea. One hour after the second injection of 40,000 units, the patient complained of a chilly sensation followed by a feeling of warmth and aching pain about the shoulders. Examination revealed a temperature of 103 and pulse 116. No explanation of the fever could be found except for a moderately enlarged inguinal lymph node on the right. A third injection of penicillin was given 2 hours later and by the following morning her temperature was 98.6 and there were no complaints. On May 5 the examination showed no signs of primary or secondary syphilis; material aspirated from the lymph node was submitted for delayed darkfield examination but was negative; the blood Kahn, however, was positive (40 Kahn units). On May 7 the Kahn test was again positive (80 Kahn units), but the physical examination showed no abnormalities otherwise. The patient again disappeared from observation but the confirmed positive Kahn test and increase in titer strongly suggest the diagnosis of early asymptomatic syphilis.

The occurrence of fever in both of the above cases was in all probability due to penicillin, which, in the presence of undetected syphilis, gave rise to a Herxheimer reaction. Thomas and Meyer[6] in their study of 675 female cases of gonorrhea encountered 2 patients in whom a mild rise in temperature after penicillin treatment for gonorrhea led them to suspect the presence of syphilis. Although our own experience is limited to two cases, it is believed that fever developing under such circumstances should serve to warn the physician as to a possible concurrent syphilitic infection.

In general, therefore, the Division of Venereal Disease Control wishes to emphasize the following points in the management of gonorrhea: (1) The possibility of an intraurethral or cervical chancre should be borne in mind; (2) blood tests for syphilis should be included in the initial examination of all gonorrhea patients; (3) all suspicious lesions should be examined by the direct or delayed darkfield procedure before penicillin is administered; (4) patients should be watched for any signs suggesting syphilis during the administration of penicillin; (5) patients should be warned of the possibility of having acquired syphilis at the time they contracted gonorrhea; (6) following penicillin treatment for gonrrhea, patients should be examined for signs of syphilis and specimens of blood should be submitted for Kahn tests periodically over a period of at least 3 months.

SUMMARY

(1) Penicillin in the treatment of gonorrhea may mask or delay the appearance of newly acquired syphilis.

(2) Physicians should be alert to the possible presence of more than one venereal disease in a given patient.

(3) The development of fever in a patient under penicillin treatment for gonorrhea strongly suggests a syphilitic infection.

(4) Emphasis is given to certain points in the management of gonorrhea which will help the physician in the discovery of syphilis.

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DIVISION OF CANCER CONTROL

The Division of Cancer Control of the Illinois State Department of Public Health was created in 1939 by legislative action in response to a public demand. The law provided for an Advisory Board to the Division to be appointed by the Governor with the advice of the medical organizations. It also provided that the Chief of the Division be appointed by the Governor upon the recommendation of the Advisory Board. In 1945 the law was amended by the 64th General Assembly to provide for the appointment of the Chief of the Division by the State Director of Public Health under the State Civil Service regulations.

The present program of the Division includes the establishment and maintenance of tumor diagnostic facilities, professional education, statistical work, lay education, and general services to the professions and to the public in the cancer field.

The policies relating to these activities have been developed in close cooperation with the Cancer Committee of the State Medical Society. Guidance by the Advisory Board to the Division, consisting of physicians eminent in the cancer field, has insured the conservation of the interests of the practicing physician in every respect.

The membership of the Advisory Board at present includes: Roswell T. Pettit, M.D., Ottawa, *Chairman;* Edwin F. Hirsch, M.D., Chicago, *Secretary;* William Cooley, M.D., Peoria; James P. Simonds, M.D., Chicago; James S. Templeton, M.D., Pinckneyville; and John A. Wolfer, M.D., Chicago.

An extensive activity of the Division at present is the establishment and maintenance of Tumor Diagnostic Services in general hospitals throughout the State.

These Services are designed to provide convenient consultation facilities for the general practitioner in the care of his cancer cases, without charge to himself or to his patient. A diagnosis and recommendations for treatment are made by the Tumor Diagnostic Service staff, and the patient is directed back to the referring physician for further care.

As a supplementary feature of these clinical diagnostic facilities a free tissue diagnostic service for medically indigent patients is made available to all physicians throughout the State.

This work has had the formal approval of the House of Delegates of the State Medical Society since its inception in 1941.

With the present rapid and extensive development of scientific medicine in all its phases, physicians today must be familiar with the newer knowledge of diagnostic and therpeutic procedure in the cancer field in order to give the cancer patient the best possible care. The promotion of professional education in cancer accordingly ocupies an important place in the program of this Division.

Statistical research in the cancer field properly includes a study of the morbidity and mortality of the disease, epedemiological and sociological factors in its incidence, and the end results of treatment.

For purposes of such study a central file of case histories in abstract form of all patients admitted to the Tumor Diagnostic Services is maintained at Division headquarters. This file is particularly valuable in the follow-up of the cases registered.

In addition to the clinical data on Tumor Service cases, a duplicate slide of all biopsy specimens microscopically diagnosed at the cancer centers, together with a copy of the pathologist's report, is filed at Division headquarters. These slides and reports provide exact and valuable information to physicians who may be confronted with the problem of a cancer patient's further care after a lapse of years.

The value of lay education in cancer control is directly proportional to the availability of diagnostic and therapeutic facilities. In view of the imminent needs it has been the policy of this Division to continue our emphasis on the establishment of such facilities for the present.

The headquarters of the Division is located at 505 South Fifth Street, Champaign.

Correspondence

SOUTHERN ILLINOIS MEDICAL SOCIETY TO MEET

One of the first big medical meetings to be held in Illinois following the lifting of travel bans by the Office of Defense Transportation will be the annual meeting of the Southern Illinois Medical Society.

The program is an all day affair scheduled for November 8, 1945, at the Emmerson Hotel in Mt. Vernon. A complimentary luncheon will be served at 12:00 noon, and the dinner is set for 6:30 p.m.

The following program has been arranged by the officers, Dr. L. S. Barger, Golconda, president, and Dr. T. B. Williamson of Mt. Vernon, secretary and treasurer.

9:30 Welcome Address; Mayor Harry Bishop, Mt. Vernon.

9:45 "The Patient with Persistent and Unexplained Hoarseness"
Dr. Millard F. Arbuckle, St. Louis, Missouri.
Assistant Professor of Clinical Otolaryngology, Washington University School of Medicine.

10:15 "Neurosyphilis — Clinico-Pathological Considerations"
Dr. Ben W. Lichtenstein, Chicago, Illinois
Director of the Laboratories and State Neuropathologist.

10:45 15 minute intermission.

11:00 "Endocrine Therapy in Gynecology"
Dr. Frederick V. Emmert, St. Louis.
Associate in Gynecology, Barnard Skin and Cancer Hospital (Washington University).

11:30 "Your Every Day Pediatric Problems".
Dr. G. M. Cline, Bloomington.

12:00 Free Luncheon, Hotel Emmerson.

1:30 "Toxemias of Pregnancy"
Dr. F. H. Falls, Chicago.
Professor Obstetrics & Gynecology, University of Illinois.

2:00 "Goiter — Medical and Surgical Treatment"
Dr. Frank Deneen, Bloomington.

2:30 "Highlights of Modern Opthalmology of General Interest"
Dr. Bennett Y. Alvis, St. Louis.
Assistant Professor Clinical Opthalmology, St. Louis University.

3:00 15 minute intermission.

3:15 "More About Prostates"
Dr. Andy Hall, Jr., St. Louis.
Faculty, Washington University.

3:45 "Some Methods of Treatment of Certain Cancers of the Skin by the General Practitioner"
Dr. Charles F. Sherwin, St. Louis.
Associate Professor of Surgery, St. Louis University.

4:15 15 minute intermission.

4:30 Business Meeting.

6:30 Dinner, Hotel Emmerson.

7:30 "Post-War Medical Services — The Doctor's Role"
Dr. H. M. Camp, Monmouth, Illinois
Secretary, Illinois State Medical Society.

8:30 President's Address
Dr. L. S. Barger, Golconda, Illinois
President, Southern Illinois Medical Ass'n.

CONFERENCE ON TUBERCULOSIS

A Conference on Control of Tuberculosis in a Metropolitan Area, sponsored by the Institute of Medicine of Chicago, will be held on Tuesday and Wednesday, November 13 and 14, 1945, at the Palmer House, Chicago, and will cover phases that are of particular importance at this time to clinicians, specialists, lay workers, and teachers, who are cordially invited to attend.

For further information and programs address The Institute of Medicine of Chicago, 86 East Randolph Street, Chicago 1, Illinois.

THE WOMAN'S AUXILIARY TO THE ILLINOIS STATE MEDICAL SOCIETY

PRESIDENT'S MESSAGE
1945-1946

The whole world is on the threshold of a new era. With thanksgiving for peace and an ache in our hearts for those who are not returning, we again turn to those pursuits making up a normal and peaceful life. How our tasks will differ from those in the past, only the future will reveal. However, the depth of the accomplishment will equal the initiative and work put into it, as it always has.

The Auxiliary, which is made up of doctors' wives and works directly under the supervision of the Medical Society, has a much greater responsibility than ever before. This organization is in the position to give help to the medical profession and to the public which can not be obtained in any other way. An Auxiliary member is an informed woman who can act as a liaison in many other organizations in the fields of health education, public relations and medical legislation. The ability to act as this liaison can not be underestimated. Today women's groups play a great part in forming public opinion and directing legislation.

Upon special request of the Medical Society, the Auxiliary has put much stress on the Benevolence Fund. The need is becoming ever greater and the Auxiliary is proud to be able to participate in such a cause. It is to be hoped that this work will some day reach the point where all needy cases can be adequately covered. To reach this goal, the help of every member is necessary.

The State Auxiliary is fortunate in having a splendid Advisory Committee composed of Dr. Frank P. Hammond, Dr. R. K. Packard, Dr. Harold Camp, and Dr. S. E. Munson. The fact that the Auxiliary has had the cooperation and respect of this group has given much encouragement and incentive to the organization. If all counties would keep trying to develop a closer bond of understanding between their own group and the county medical society, much more rapid progress could be made. Both Auxiliary and Medical Society should have a definite knowledge of any special work to be accomplished by the Auxiliary. It is really very surprising that a great many doctors still believe the Auxiliary is only for tea parties.

The State Auxiliary wishes to welcome back the many members whose husbands have been in service. Many of our service wives are now returning and will find their Auxiliary has carried on under difficulties, but is eager and happy to have them home again.

Estella Gareiss

ILLINOIS DOCTORS PASS EXAMINATION FOR AMERICAN COLLEGE OF CHEST PHYSICIANS

The following physicians successfully passed the written examination for Fellowship in the American College of Chest Physicians held in June 1945, and will be awarded their Fellowship Certificates at the next Convocation of the College:

Dominic A. DePinto, M.D., Chicago, Illinois
F. C. Hammitt, M.D., Peoria, Illinois
Leo J. Latz, M.D., Chicago, Illinois
David F. Loewen, M.D., Decatur, Illinois.

The Convocations are held in conjunction with the annual meetings of the College which will again be resumed in 1946.

INTERNATIONAL COLLEGE OF SURGEONS CONVENTION IN WASHINGTON

The International College of Surgeons will hold its Tenth Annual Convention and Convocation on December 7th and 8th, 1945, at the Mayflower Hotel, Washington, D. C. At this time approximately 200 men will receive their Fellowship. A scientific program is arranged for both days. Convocation exercises will be held Friday evening, December 7th, in the Mayflower Auditorium.

HOLD OPEN HOUSE TO MARK 85TH ANNIVERSARY

On October 30th, J. E. Hanger, Inc., held an open house and public showing of their artificial legs, arms, and appliances to mark the 85th anniversary of the company.

In these 85 years more than a quarter million soldiers and civilians have been returned to normal lives through Hanger limbs, and now particular attention is being paid to the needs of returning veterans. The company has been cooperating with the Army and Navy, and with the Veterans Administration.

Medicine's Role in the War Effort

MEDICAL DEMOBILIZATION

NAVY

In the discharge of its obligation to the civilian public the Navy Department desires to accomplish as rapidly as possible the release of physicians, dentists, nurses and other officers and enlisted personnel of the Naval Reserve trained in medical fields. It is obvious that during the next few months they will be needed at almost full strength for the care, evacuation and disposition of the wounded and sick still coming from overseas and also in connection with general demobilization.

The transportation of wounded require full staffing at the point of departure, en route to the medical centers in the United States and within the naval hospitals and dispensaries of the continental United States. It should be remembered that the peak hospital census in military establishments in this country following V-E day was not reached until July 1.

The medical corps will perform a vital function over the next year or eighteen months in the separation process promised for over two and a half million men. Every man and woman returned to civilian life must be given a physical examination to include a chest x-ray, blood tests and any other testing individually indicated.

The ncessary lag in medical demobilization behind general demobilization will be kept at an absolute minimum, and every effort will be made to respond at the earliest moment to the special needs of medical schools, teaching hospitals and individual and community hardship cases.

Effective September 15, therefore, the higher critical score for medical corps release is necessary, as announced in ALNAV 252. This critical score requires a total of 60 points* on the following basis:

½ point for each year of age, computed to nearest birthday.

½ point for each month of active duty from Sept. 1, 1939.

¼ point additional for each month of active duty outside the United States since Sept. 1, 1939 (effective Sept. 15, 1945).

10 points for a state of dependency existing as of Aug. 15, 1945.

On this basis it is determined that 1,128 medical officers will be eligible for release by September 15, 190 additional by November 1, 137 additional by December 1 and 223 additional by January 1, or a total of 1,678. Thereafter it is expected that critical scores for release will be lowered by degrees in order to carry out the present plan to separate a total of 8,000 medical officers by Sept. 1, 1946.

Many medical officers in the Reserve desire opportunities for "refresher" training before returning to civilian practice. Assignments to duty in United States naval hospitals afford one means of supplying such training, and the average period of time allotted for this specific purpose will probably be about three months.

Officers who elect to continue on active duty for a "refresher" period after becoming eligible for release under the point system may do so if they so request. The request may state that it is understood that this continuance on active duty after eligibility for release is for the purpose of obtaining an assignment in a specific type of service in a naval hospital for "refresher" training.

In a limited number of instances such assignments may be available and possible before the full 60 points of eligibility for release have been reached, but this "refresher" training by hospital assignments may retain an officer beyond the date when his point eligibility for release becomes effective. Periods of assignments of this type, constituting active duty in any United States naval hospital officially approved for graduate or residency type training, may be submitted for credits before the American colleges and the American boards with every likelihood of acceptance.

Plans are projected for the peacetime utilization of medical officers of the Reserve on inactive duty as consultants, lecturers or otherwise in naval hospitals near

*On October 8, this was lowered to 53 points. It was announced that 4000 navy reserve physicians will become eligible for release under the new score by Jan. 1, 1946.

their place of residence. Additional plans are under consideration in which the active assistance of reserve officers is desired and to be enlisted whereby junior medical officers in the regular Navy undergoing graduate training in United States naval hospitals may seek and obtain one year residency appointments in the foremost civilian institutions for the rounding out of their specialty training.

The graduate educational program of the medical corps of the regular Navy, already in full swing, and its peacetime administration offer inducement to medical officers of the Reserve to transfer to the regular Navy. This, it is hoped, may be sought by many.

The continued and active interest of our many reserve officers in the constant advancement of the medical corps of the United States Navy and in its aims is desired and solicited by the Bureau of Medicine and Surgery of the United States Navy.

ARMY

Following the termination of hostilities in Europe, the Surgeon General sought to build up maximum medical support in the Pacific for projected operations against Japan and simultaneously to provide an orderly system for the release of Medical Department officers after insuring that requirements would be met for the Army of Occupation in Europe and for hospitals in the United States with their large numbers of sick and wounded.

The early advent of V-J day necessitated radical changes in the Surgeon General's planning. The Pacific changed from a deficit theater in need of thousands of additional personnel for full-scale military operations to a surplus theater which had available for return large numbers of Medical Department personnel to the United States just as soon as the occupation of Japan had been completed. Improvement in the overall transportation situation likewise made it possible to accelerate the return of troops from the European and Mediterranean theaters, which presaged the more rapid return and separation of Medical Department personnel.

The cessation of hostilities in the Pacific also had important bearing on the large general and convalescent hospitals in the United States to which the more seriously sick and wounded are returned for definitive care. Except for small numbers of battle casualties now scattered through Pacific hospitals whose early return to the United States is a prime objective, no additional battle casualties will be evacuated and the patient flow from overseas will be limited to individuals with serious diseases or nonbattle injuries. This foreshadowed an early shrinkage in the general and convalescent hospitals at home.

The rapid demobilization of the Army during the coming months will necessitate the use of almost 2,000 Medical Corps officers at separation centers for final examinations. In addition, the large number of limited service personnel whose separation will be effected under the demobilization plan will further increase the requirement for Medical Corps officers for medical processing work.

Under the V-E plan, which was published in full in THE JOURNAL August 11, page 1104, it was necessary to establish adjusted service ratings for separation as high as 120 for scarce Medical Corps specialists and 100 for nonscarce Medical Corps officers. These high adjusted service ratings reflected the fact that the Army was in a position to release Medical Department personnel only very slowly as long as the war in the Pacific continued and large numbers of battle casualties in the United States hospitals had not yet completed their treatment.

The worldwide distribution of Medical Corps officers as of the beginning of September is estimated as follows: approximately 22,000 overseas, 11,000 in European theater and 9,000 in the Pacific and the Asiatic mainland; the remainder overseas are in other bases such as Newfoundland, the Middle East, on hospital ships, and in dispensaries of the Air Transport Command. There are about 16,000 in the United States, excluding 3,000 who are patients in hospitals and newly commissioned officers in training status. Another 4,000 were in transit to the Pacific as of V-J day; this group now becomes immediately available for separation or as replacements for high point individuals who can be separated immediately.

TABLE 1.—*Criteria for Separation*

Corps	Adjusted Service Ratings	Age	Length of Service
Medical Corps	80	48	Prior to Pearl Harbor*
Dental Corps	80	48	Prior to Pearl Harbor
Veterinary Corps ...	80	42	Prior to 1941
Sanitary Corps	70	42	Prior to Pearl Harbor
Medical Administrative Corps	70	42	Prior to Pearl Harbor
Army Nurse Corps† .	35	35	
Medical Department Dietitians†	40	40	
Physical therapists† .	40	40	

* Except grades A, B and C of ophthalmologists and otorhinolaryngologists, orthopedic surgeons and medical laboratory officers, all grades of neuropsychiatrists and plastic surgeons (prior to Jan. 1, 1941).

† In addition, married, dependents under 14.

Under the V-E plan, almost 1,500 Medical Corps officers have been separated. The Surgeon General testified on August 31 for the Military Affairs Committee of the House of Representatives that he planned to separate a total of 13,000 Medical Corps officers, 25,000 nurses and 3,500 dentists by the end of this year.

It is estimated that about 6,000 Medical Corps officers will be returned from Europe for separation and that an equivalent number can be released from personnel now in the United States. Surplus medical personnel will be returned from the Pacific as expeditiously as possible. A commission is now on its way to the Pacific to determine the exact number of surplus personnel. As already stated, 1,500 doctors have already been released under the V-E plan, and it now appears that the 13,000 estimate presented by the Surgeon General to Congress may be exceeded.

The original criteria for the release of Medical Corps officers were geared to adjusted service ratings and age. On the basis of both military and civilian reactions, a third factor, length of service, has been added.

Table 1 summarizes the criteria for separation, any one of which is basis for relief from active military service.

Despite the cessation of hostilities, a limited number of Medical Department personnel must still be sent from the United States to overseas theaters to permit the return of high score individuals for separation. The criteria presented in table 2 have been established to govern the selection of personnel for overseas service, except for volunteers. Individuals to go overseas must have a point score below that listed in the table or be below the age therin shown.

The separation criteria now in effect will have to be revised on or before the end of this year. Present plans contemplate the lowering of criteria during the first half of 1946, which will include a provision for length of service as a basis for separation of officers who came on active duty after Pearl Harbor. On the basis of a 2.5 million army, the Surgeon General will be able to release from V-E strength approximately 30,000 Medical Corps officers and 10,000 dentists and more than 40,000 nurses.

TABLE 2.—*Criteria Governing Selection for Overseas Service*

Corps	Adjusted Service Ratings	Age
Medical Corps	45	40
Dental Corps	45	40
Sanitary Corps	45	35
Veterinary Corps	30	35
Medical Administrative Corps	30	35
Army Nurse Corps	12	30
Medical Department Dietitians, Physical Therapists	18	30

★ ★

GRADUATE AVIATION MEDICAL OFFICERS

Nine people from Illinois were among the 145 medical officers who completed the Aviation Medical Examiners' course today at the Army Air Forces School of Aviation Medicine, Randolph Field.

"Your training here has qualified you for the job ahead", stated Lt. Col. Fratis L. Duff, Ass't. Commandant of the Army Air Forces School of Aviation Medicine to the first peacetime graduating class of Flight Surgeons and Flight Nurses held since V-J day.

In speaking to the doctors and nurses especially trained in aviation medicine, Col. Duff explained, "Upon your shoulders will fall the accumulative tasks of caring for the sick and wounded servicemen being brought back to this country after many long years in Japanese prison camps".

The ones from Ill. completing the course were: Captain Edward T. Baumgart, MC, Danville, Ill., Captain Charles Barron, MC, Chicago, Ill., Captain Howard T. Barrett, MC, Pontiac, Ill., Captain Kenneth J. Moss, MC, Decatur, Ill., Captain Robert W. Thometz, MC, Oak Park, Ill., Major Robert B. Lewis, MC, Albany, Ill., First Lt. John N. Little, MC, Evanston, Ill., Captain Elmer E. Terrell, MC, Paris, Ill., Captain Henry M. Wilson Jr., MC, Peoria, Ill.

SEES NO CAUSE FOR ALARM THAT VETS WILL IMPORT DEADLY PARASITES

An army medical officer, writing in the September 1 issue of *The Journal of the American Medical Association*, says there is no need for alarm that military and civilian personnel returning to the United States from the tropics will import intestinal parasites capable of producing fatal or serious diseases.

Major Harry Most, Medical Corps, Army of the United States, carried out a study on 144 of the more than 1,000 passengers returned to the United States on the liner Gripsholm in December 1943, and found that 70 per cent of the passengers examined harbored one or more intestinal parasites.

"These parasites, for the most part, are not foreign to this country," he concluded, "and there is no basis for alarm about the spread of intestinal parasitic diseases in this country."

Major Most, who is on leave from his position as assistant professor of preventive medicine and medicine at the New York University College of Medicine, added, however, that "surveys for intestinal infections should be conducted on representative groups returning to this country to detect carriers so they may be treated. Food handlers should receive special attention."

The parasitologic studies were conducted in the Tropical Diseases Diagnostic Laboratory of the New York Health Department.

The study showed that 36 persons, or 25 per cent of the entire group examined, were infected with a type of parasite which causes chronic dysentery, intestinal ulcers and liver abscesses.

"It is interesting to note," Captain Most said, "that there were no infections found from hookworms."

Original Articles

GLOBAL DISEASE*

An Historical Perspective

DAVID J. DAVIS, M.D.
Dean Emeritus, College of Medicine,
University of Illinois,
CHICAGO

Some months ago in an issue of the U. S. Public Health Reports, the short statement appeared that two tse-tse flies had been found in a plane that had just landed in Brazil from Africa. Having thus been discovered, these flies did not get by. But they might have gotten by. For some years before (about 1930 or 1931) some aggressive mosquitoes, anopheles gambiae, from Africa, did land on this very shore in Brazil, possibly from a plane, or possibly from a destroyer, and before they and their offspring were finally exterminated, they had in one state alone infected 100,000 persons of whom 14,000 died. (Soper)

In discussing global diseases I might well use as a subject, this episode of the arrival in this Western Hemisphere of two stowaway flies from the Eastern Hemisphere, together will all that such a journey might imply. I can leave it to the imagination of the reader as to what might have happened if some tse-tse flies infected with trypanosoma gambiense had been as successful in their venture as had been the anopheles gambiar. For such arrivals and departures of insects, germs, viruses, and parasites passing from region to region and from continent to continent, living their lives and moving about in this world quite freely for the most part, have occurred in many devious ways even up to the present time. The improved and rapid transportation of human beings and animals has greatly facilitated the dissemination of these disease agents, a fact that has necessitated the creation of the specialty of disinfection and disinsection of planes, ships, trucks and trains on a scale hardly dreamed of a few years ago.

Many diseases from the beginning have tended to become global. The ancients were well aware of this, for throughout very early literature are brief references, usually a few words or a few sentences, from which we may learn something of the devastation of mass movements of disease. Such movements were called variously, in humans, an outbreak or an epidemic; or, if severe, a plague or a pestilence; and, when in animals, a murrain.

It was not, however, until the Plague of Athens in 430 B.C. that anything like an adequate report appeared of the destruction in mass of humans by disease, a phenomenon that had happened no doubt many times before and, we well know, has happened many times since. Thucydides, the Greek historian and scholar, was the reporter of the disaster. He lived in Athens at the time, and says that he himself took the disease and saw others suffering with it. Fortunately, he recovered, but many of his colleagues, including the great Pericles, died of it.

At that time in Greece the Spartans and the Athenians were engaged in a life and death struggle, the Pelopenesian War. This lasted, like our two world wars, some 25 years, ending with the defeat of the Athenians. From this disaster the Golden Age of Greece never fully recovered.

Read at the Annual Dinner of the Society of Internal Medicine of Chicago, May 21, 1945.

*In this paper, global disease refers primarily to infections and preventable diseases.

Thucydides decided to write a history of this war. This history may be divided into two parts, a long account of the military and political struggles and a shorter but far more vivid account of the Great Plague. This plague occurred during the second year of the war, quite as in the second year of World War I in 1918, the modern plague of influenza appeared. Thucydides says the plague started far to the south in Ethiopia, moved north to Egypt, west through Libya, east to Persia and north and west to Greece. To the people this was a global disease, for these countries included all the world they then knew.

Thucydides gives many facts about the disease including the symptoms. It was epidemic and contagious. It had appeared in former times. It was most fatal in crowded places like Athens. It was incurable. It was attended with despondency and moral depravity. The symptoms included high fever and thirst, redness of the eyes, bleeding of the throat and tongue, sneezing and hoarseness. The lungs later were attacked; which attacks were associated with violent cough. Small pustules and ulcers of the skin appeared and gangrene of the extremities was common. Death occurred on the 7th to the 9th day.

The devastation wrought in Athens was appalling. Thucydides' words remind one of our present day-to-day accounts in the papers of the horrors of the German and Japanese concentration camps. Bodies in heaps lay about the streets unburied for days, "the dead upon the dying and the dying upon the dead." Animals consumed the human bodies and in turn were afflicted. One-seventh of the population died. One-fourth of a military division died in forty days. The first period of the epidemic lasted three years. (430-428 B.C.) Later it reappeared. He noted that one attack conferred immunity; or if a second attack occurred it was never fatal[1].

Hippocrates lived at this very time. Possibly he witnessed this plague but this is not certain. Nowhere does he describe it as a definite epidemic, nor does he refer to it by name or place even in his books on The Epidemics. In this connection, though writing at great length on epidemics, Hippocrates, strange to say, nowhere recognizes contagion. This is the statement of Francis Adams, the well known classical scholar who translated all of Hippocrates's works as well as many other ancient medical classics. Hippocrates was thoroughly dominated by his first, second, third, fourth and fifth constitutions, conceptions which seemed in his mind to exclude contagion or to make such an assumption unnecessary.

What the Plague of Athens was, even our most authoritative scholars have never been able to determine. Typhus, small pox, bubonic plague, measles and influenza or a combination of two or more of these diseases have been given careful consideration. Some students have concluded that it was a disease not in existence at the present time.

The lucid and vivid description of this palgue by Thucydides places him high above all others as an early observer of epidemics. He easily became the Father of Epidemiology, as his contemporaries, Hippocrates became the Father of Medicine, and Herodotus, the Father of History.

This history of the Athenian Plague has had a far reaching influence on medical literature, even down to modern times. Diodorus followed Thucydides closely in describing the Plague of Syracuse in 395 B.C.; as did Livy in reporting a later epidemic in 212 B.C. Again Lucretius, 500 years later in his ambitious attempt to comprehend all nature in his poem, "De Rerum Natura", thought enough of Thucydides' history to include a long account of it, using many identical phrases. Later, the Plague of Marcus Aurelius, 164 A.D., of which Galen was a contemporary witness and writer, resembled the Plague of Athens. It lasted 50 years and ravaged the entire Greco-Roman world.

In the first century B.C., in the midst, as it were, of these devastating plagues, appeared one of the great writers of all time, the Roman poet, Virgil. He was a farmer. Louis Bromfield, in his recent book "Pleasant Valley," says a good farmer should be, among other things, a veterinarian, and such was Virgil. He loved animals and was an acute observer. Round about him he saw his animals destroyed by disease. So he wrote about this destruction devoting one of his Georgics to the animal plagues. In this instance there is no doubt about the diagnosis. His description is a classical one of anthrax. Here are samples of his lines. (translated)

"From tainted air arose a dreadful storm,
Inflamed by autumn's heat.

1. This was one of the first if not the very first reference to acquired immunity in disease.

And gave to death all cattle, tame or wild
Corrupting lakes, poisoning the grassy food."

And, also, (translated)

"Till men dig deep and bury them in earth
The skins are useless, nor the tainted flesh
Can water cleanse, nor raging fire subdue,
Nor is it possible to shear the fleece
So damaged with disease and filthiness,
Nor can the weaver touch the putrid web;
But should a man attempt the odious garb
With burning pimples and disgusting sweat
His limbs are seized and in no lengthened time,
The fire accursed consumes his poisoned frame."[2]

If one reads the important volume by George Fleming of England, published in 1871 on Animal Plagues, which includes much concerning human epidemics, one is struck by the enormous loss of life of both man and his domestic animals through the centuries. Year after year the figures run into the millions. Of these epidemics, anthrax, all things considered, was Enemy No. 1. Perhaps in more recent years we are forgetting anthrax and its history. But it is still a serious and widespread global disease and in many parts of the world it continues to be devastating to both animals and man. In regions of China, Russia, India, Africa and South America, the economic losses are great. As late as 1924 and 1925 in Russia alone (Gay) over 31,000 cases in man occurred. In its dissemination its pathways are often devious and long. Some of us remember the intriguing shaving brush epidemics here in this country about the time of the first World War.

Anthrax, with its broad pathogenic spectrum — man, cattle, sheep, goats, horses, swine, dogs, cats, laboratory animals and, at times, birds and fowl — is the disease par excellance that arose and became exquisitely adapted to live with and devastate the human race, its herds and flocks during the very long periods of time when man was evolving through the pastoral and agricultural stages of development. To this day, it continues to find favorable conditions in such agricultural regions. But in the great and rising industrial countries of the world, it is losing ground and in time probably will become relatively unimportant in these regions.

2. From George Fleming, Animal Plagues, London, Chapman and Hall, 1871.

Anthrax, however, in recompense, as it were, for its atrocities, has furnished medicine much of its best material for the study of infectious diseases. A large spore forming organism, it was the first pathogenic germ to be seen by Rayer in 1850 in the blood of sick animals. Both Pasteur and Koch used it in their earliest classical experiments in bacteriology and immunology in many profitable ways. Let us hope the recent reports of its susceptibility to penicillin and other drugs may be substantiated for it has had a record of destruction of both animal and human life probably second to none. We should say too, that we owe much to the venerable investigators of this disease and we are doubly indebted to Virgil for having given to us 2000 years ago, in his incomparable verse, our first real introduction to anthrax, a description which in vividness and elegance of phrase has never been surpassed.

Through the centuries during and following the decline and fall of Rome, continued the deadly outbreaks of the global diseases with monotonous regularity. I will briefly mention only one, the Plague of Constantinople, also called the Plague of Justinian in the year 542 A.D. Gibbon, in his "Decline and Fall of the Roman Empire," gives at length the account of Procopius and other contemporaries of this plague. From their records there is no doubt that it was the bubonic plague. Gibbon's account is given in his masterly English style. "The mortality was extraordinary, even beyond conjecture. It continued with recessions for 52 years. At one period during three months, five, and at length, ten thousand persons died each day in Constantinople. Many cities in the east were vacant. The triple scourge, war, pestilence, and famine afflicted the subjects of Justinian and his reign is disgraced by a visible decrease in the human species, which has never been repaired in some of the fairest countries of the globe."[3]

During the Dark Ages there is evidence that these scourges continued, though records are scant. When the lights again began to shine about the year 1000 A.D., much of the world was still suffering from wide-spread epidemics and plagues. Leprosy had spread over a large

3. The estimates of the dead in this plague run into many millions. The account is much like that of Boccaccio of the Black Death nearly a thousand years later in 1348.

part of Europe and the Black Death and many other pestilences continued to ravage the then known world for hundreds of years. Together they are known as the Great Epidemics of the Middle Ages, as described by Hecker and others.

This is an opportune time in our review of the more ancient global diseases to briefly mention the indebtedness of the medical pofession to general and classical literature. Among the references thus far given, the large number of contributions to medicine made by non-medical writers is significant. To these writers, historical medicine owes much. The records of some of these ancient diseases would be scant indeed without them. Most of the contributions, as indicated, concern the great pestilences, which being devastating and dramatic tragedies, furnished subjects suitable for the most talented literary writers of the time.

Here are listed several, some of which have already been mentioned:

1. The Plague of Athens, by Thucydides and later by Lucretius
2. Anthrax and the Animal Plagues, by Virgil
3. The Plague of Constantinople, also called the Justinian Plague of 542 A.D., by Gibbon
4. Black Death or Bubonic Plague of 1348 A.D. by Boccaccio in the Decameron
5. The Plague of London in 1665 by Defoe. (Defoe was seven years old at the time, but in his later years he described the Plague as if he had observed it as an adult.)[4]

Just at the close of the Middle Ages occurred the most important and far reaching event in history, namely, the discovery of the Western Hemisphere; two huge unknown continents sparsely inhabited by primitive peoples. It has taken a large part of the world 400 years to appreciate that this discovery was such a geat and far reaching event. Only just now are some nations of the world so convinced.

With the discovery of this western world began 400 years of the greatest migration on record, the mass movement of millions of people from east to west. A migration on such a scale had never occurred before and it can never occur again because there are no other worlds to discover. It has been said that the Europeans, especially the Spaniards, had a great field day on a magnificent scale during this long period, conquering, robbing, looting and dispensing their religion to the natives. That is, of course, only *one* way of putting it. But we should not forget, what secular historians have largely forgotten, that during this period there also occurred the greatest mass movements of all time of disease, parasites, germs, viruses, insects, along with their hosts. Wm. N. Fenton, (Smithsonian Re-) port, 1941, p. 503, Washington, D. C.,) of the Bureau of American Ethnology, in a special study, lists a formidable group of such imported diseases to this country as follows: venereal diseases, tuberculosis, measles, scarlet fever, diphtheria, chicken pox, small pox, typhus, typhoid, malaria and yellow fever. We should now add Malta fever. Much earlier, the Jesuit ethnologist, Lafitau, writes that "were it not for these introduced contagions, which carried a majority to their graves ere the prime of life, the otherwise rigorous constitutions of the Indians stood them to an extreme old age in which they had either to be knocked on the head, or suffered to go out like a light by a mere default of nature." (Quoted by Fenton.) Such an assault by new diseases, (together with alcohol) many of which were so deadly to the savages and against which their defenses were totally lacking, was a catastrophe that resulted in the near extermination of the natives in many of the tribes.

It was during these centuries and chiefly the 16th and 17th that so many serious diseases, which before that time were more or less regional, became global. As already stated, the movement was definitely from east to west and, in most instances, along the migration routes. For some diseases the evidence of the time of their arrival is fairly concrete. Small pox was reported in Florida early in the fifteen hundreds; also, further north in certain of the colonies, about the same time. And in 1682, literally, a boat load of small pox patients came over in the ship, Welcome, which was carrying the Quakers to Pennsylvania. On this one ship thirty persons died at sea of small pox. Naturally, the exact routes and time of arrival of the several diseases can, for the most part, never be known. But the fact that these diseases in Fenton's list were widely disseminated in Europe and that

4. And were we to go a step further, we could say, as was said by a great English physician, that one of the highest tributes and one of the finest character delineations of the Doctor was made, not by a medical man, but by that eminent Scotch writer and Divine, Ian MacLaren, in his immortal story "Beside the Bonny Brier Bush."

methods of control were almost totally lacking, seems ample evidence that the migration in mass of these diseases took place largely during the early colonial period. (see Heaton: Bull. of History of Medicine, 1945, Vol. 17, p.9)

But there are certain diseases apparently indigenous to the Western Hemisphere, which have played significant roles in history and which did not come from over seas. The records are not clear in all cases by any means.

There is the old and now threadbare story of pre-Columbian syphilis, that the sailors of Columbus carried back to Spain this infection which they had acquired from the natives in the West Indies. Sudhoff, the noted medical historian, doubts this origin of syphilis and offers evidence to the contrary, though it may be said that Dr. W. A. Pusey has analyzed the existing data in his monograph in the History of Syphilis and believes the theory well grounded. The important fact remains, however, that genuine syphilis did break out during the campaign of Charles VIII at Naples in 1495, spread rapidly over Europe, and then over the entire world in the form of an acute highly fatal epidemic, called the *morbus gallicus* or French disease. There seems little doubt that, wherever its ultimate origin may have been, it migrated from Europe to the Western Hemisphere largely with the Europeans in the 16th century.

Yellow fever, according to Tertre, was first recorded on the island of Guadaloupe in the West Indies in 1635. (McKinley) For a long time it existed primarily in South America, the West Indies, and in Africa. Its exact origin is shrouded in mystery. For at least 300 years, its main center was the West Indies and adjacent mainlands, where it reached its greatest intensity, and from which centers it spearheaded in various directions from time to time. It should be remembered, however, that the introduction of slaves from Africa may have carried the disease to the Western Hemisphere at an earlier period, and that Africa might have been the primary center with the West Indies and South America as secondary foci.

There are three other important diseases which seem definitely indigenous to the Western Hemisphere, and are still limited to this region so far as available data indicate.

First, Rocky Mountain spotted fever was apparently indigenous to our western states, though now we note it either has widely extended its distribution or possibly was present in a much larger area but unrecognized until very recently.

Second coccidioidomycosis seems indigenous to both South and North America. First recognized many years ago in Argentina, it was later found in the southwest especially in California. In many ways it simulates tuberculosis. The early cases observed consisted mainly of serious local lesions. Now it is recognized in the form of Valley fever or San Joaquin fever on an epidemic scale and widely distributed in the southwest. The recent significant work of Emmons (Arch. of Path., 1942, Vol. 34, p. 791) indicates that it may be primarily a fungus infection of soil rodents. The epidemiology of this disease is one of the most intriguing and instructive problems in this field at the present time. It is instructive, because apparently it furnishes an opportunity to observe the evolution of a recent or new disease. One must say "apparently" because it is difficult to say whether certain diseases are progressing or receding; or perhaps just stationary, that is, continuing their existence in a fairly well balanced environment. The difficulty is that we do not know the history of single strains of causative organisms.

The third Western Hemisphere disease is American trypanosomiasis, known also as Chagas disease. It appears in practically every country south of the Rio Grande, and triatomas, its vector, infected with trypanosoma cruzi have been found this side of the Mexican border in the United States. As yet no human cases have been recognized here. This disease apparently has been expanding on a wide front. Where or when it will stop is an unknown problem. The distribution of the trypanosomiases, of which their exist many in both man and animals in many parts of the world, is another intriguing phenomenon. This is especially true of the deadly African sleeping sickness carried by the tse-tse fly.

As to future possible mass movements of the great diseases of man and animals there is wide room for discussion and difference of opinion. In general, diseases in the past have moved from east to west along the routes of human migrations. as examples, influenza moved thus in 1918 as

also did Asiatic cholera during the last century; though in limited regions both exhibited variations. One striking exception to the east-west movements was the pandemic of bubonic plague when this disease was carried from Hongkong to California in 1900 and has been working eastward ever since in ground squirrels.

Having seen how this country in a general way was overrun by various diseases in recent times, let us now come closer home and briefly consider some past experiences of our central west. Situated in the very heart of this continent far from the infested shores of ocean traffic, we might expect some protection. But it does not seem to have worked out that way, judged by historical evidence.

Before the white man came to this country, as stated above, the Indians were fairly healthy, according to the testimony of early travelers and discoverers. They lived in the open air and had learned to live reasonably well with their own diseases. They were comparable to the range cattle on our Western Plains. Even up to 1750 and later, few global diseases had as yet afflicted them on a large scale. But this did not long continue, for, with the inceasing invasion of the country by the whites, roughly the late seventeen and early eighteen hundreds, both Indians and whites became heavily infected, chiefly with diseases of European origin. The writings of early physicians and travelers are replete with statements that the central west was seething with fevers and distempers. In certain localities, reports are extant by doctors that not one family was healthy and free from some serious affliction. Schoolcraft, the noted explorer and ethnologist, in passing through Illinois in the early eighteen twenties said, "I really believe it seldom happens that a greater proportion of an army falls victim to the sword during a campaign than there has of the inhabitants of Illinois to disease during the season that I have been here." (see: Ackerknecht, Malaria in the Upper Mississippi Valley, 1760-1900. Johns Hopkins Press, 1945, for literature and quotations.)

Malaria was the great curse. A large part of the entire country had been malarialized no doubt very early by the emigrants and, while the sources were probably numerous, two world distributing centers stand out conspicuously, an early one, the thousands of slaves from tropical Africa, and a later one, the larger number of people migrating to this country during the last century from southern Europe, especially Italy.

But malaria was not the only disease then rampant; I can only mention some others briefly. There was milk sickness, also called trembles, prevalent especially in the lowlands of many of the west central states. Great numbers of persons were made sick and many died. Not infrequently it was confused with malaria. It was caused by the poisoning of cattle from eating white snake root, and transferred to humans and other animals through milk, butter, and meat. For a long time the cause of this disease, (or poisoning) was a mystery. But in the last century, according to Rawlings, (Rise and Fall of Disease in Illinois, 1927, Illinois State Dept. of Health) Dr. A. J. Clay of Hoopeston, Illinois, determined the etiology by feeding experiments showing that *eupatorium urticaefolium* contained the toxic agent. The active principle is called trematol. It has never been isolated or analyzed and its nature still remains an intriguing research problem. Dr. Clay had suffered severely from the disease, having lost members of his family, relatives and friends, as well as his stock. Rawlings says Clay, a Doctor and Health Officer, deserves more credit than any other person in the control of this affliction. This was an early medical discovery of pioneer days of the first magnitude and merits more attention than it has received. This disease was common during the first half of the last century. As the country became settled and the land cultivated, the disease receded with the disappearance of the white snake root. Today, it is little known even by the profession.

Milk sickness has been popularized by the experience of Lincoln's family. When Tom Lincoln brought his family from Kentucky in 1816 into Spencer County, Indiana, he found the country infested with disease, particularly malaria and milk sickness. The mother, Nancy Hanks, died of the latter disease not long after their arrival, and later two other members of the Hanks' family succumbed. Large numbers of their cattle likewise died. It has been stated that the "milk sick", as Tom Lincoln called it, was one factor in later inducing him and his family to move to the Sangamon River country, thereby making Illinois the state of Abraham Lincoln.

For many details of this interesting medical episode in the life of the Lincoln family the reader is referred to Carl Sandberg's "Life of Lincoln".

Another disease that was global, par excellance, in its behavior and that several times ravaged America, was Asiatic cholera. Cholera has manifested its epidemicity chiefly in recent times, though probably endemic in India for hundreds of years. During the last century suddenly it flared up with violence and encircled the world four times, each time from east to west, and each time from India. In general, it followed the great travel and transportation routes. The first epidemic occurred from 1826-27, the second from 1848-57, the third from 1865-68 and the fourth from 1870-73.

The central west was directly in its path each time and suffered severely. The first epidemic was at the time of the Black Hawk War in 1832. It was so severe that this year became known as the cholera year. Nearly one fourth of General Winfield Scott's army of 1000 died of cholera, as many or more than died from combat service during the entire war. During the several epidemics, the loss of life was relatively enormous. No definite over-all statistics are available. This disease attacked people in all walks of life, rich and poor, prince and pauper, as one report put it.[5]

Yellow fever, in its occasional spearheads from about the Gulf of Mexico and the West Indies north along the Mississippi River, reached Illinois only twice. In 1878 in Cairo there were 80 cases with 62 deaths. In some ways the almost annual waves of paralyzing fear of yellow fever was more serious to the people in the central west than the disease itself. They continued until just after the Spanish-American War.

One could mention several other diseases, notably, typhoid and diphtheria, prevalent in the upper Mississippi Valley in its earlier years, all adding to the record of a region that, in former times, was anything but a health resort. But we must hasten to add that this territory was little, if any, worse than adjacent territories of the United States, most of which under comparable conditions, suffered about equally. We should say too, that during the past half century, all the states have met the problems of epidemic disease in such a way as to make the central west, at present, in such a sharp contrast with a century ago, one of the healthiest regions in the world.

In contrast with the positive problems concerning the progressive distribution of diseases are the numerous intriguing problems of a negative nature. On the several continents and in many regions, questions continually arise as to the dangers from the spread of epidemic and endemic diseases from adjacent areas; yet these dangers do not often materialize. To give only one example: why has not yellow fever advanced from Africa to southern Asia and to the East Indies? This problem has disturbed the peoples of the several nations concerned for a long time, since the conditions and factors existing in these countries seem favorable for the spread of this disease. There are also the associated questions as to why certain diseases rapidly invade a region and, then, perhaps promptly, or possibly after a long period of time, recede or disappear altogether. Asiatic cholera again furnishes a striking illustration of the behavior of such epidemics of which there are many. In this connection it is instructive to compare Asiatic cholera and typhoid fever, two intestinal diseases distributed largely by water and food and similar in other respects. While the cholera often tends to spread rapidly it also recedes rapidly and over large regions will completely disappear as happened in North America after the epidemics of the last century. Typhoid, on the other hand, seems more insidious and tends to be far more persistent in its endemic behavior.

The above statements serve to emphasize the biological nature of disease and to illustrate the fact that the distribution of agents of disease are quite comparable with the distribution of the fauna and flora of a region. While differing in almost infinite detail as regards such factors as nature of infecting agent, vector distribution, artificial and therapeutic measures, carrier state, climate, opportunist relations, nature and move-

5. The story of Asiatic cholera in the State of Illinois furnishes a most interesting chapter in medical history. Here was a disease that seemingly was so foreign to this country. Indigenous to lands on the other side of the globe, yet it was striking right and left with terrible effect in the very heart of a country which, in many ways, was still virgin territory. It was at this time, 1833, that Illinois' most eminent citizen, Gov. Ninian Edwards died of this disease. He had been the first territorial governor of Illinois from 1809 to 1818, one of Illinois' two first U. S. Senators, and governor of the State from 1824 to 1828. He was stricken at Belleville, Illinois. His son, Ninian Edwards, Jr., married one of the Todd sister. Later, Abraham Lincoln married the other in the Edwards' home in Springfield, Illinois.

ment of hosts, and in other ways too numerous to mention here, nevertheless, certain general laws and principles do apply and do determine, in each instance, the final result. Rarely, if ever, is only one factor alone operative.

Needless to say, both the general and specific studies on many, if not most of these factors, are in their incipiency. Illustrative of such investigations is that of Ackerknecht (loc. cit.) in which he points out that some dozen or more factors were concerned at times, in different degrees and in direct or indirect ways, in causing the recession or disappearance of malaria in the upper Mississippi Valley during the past century. The results of the evaluation of numerous factors having to do with the more or less regular recession of tuberculosis, now proceeding very generally, is likewise illustrative of the same general phenomenon. In this connection, too, one could cite striking examples from the list of contagious diseases.

Before closing, permit me to emphasize one point which can not be repeated too often, namely, that diseases come and diseases go. They may follow fairly definite patterns for a period but sooner or later they change their behavior in many ways; in intensity, in distribution, in attack rate, in aggressiveness, and, at times, in symptomatology. Epidemics, even of the same disease, become individual problems. They may mysteriously disappear from large areas only to return again at a later time. Such characteristics are strikingly biological. Their courses are essentially dynamic, not static.

There exists a group of diseases called, in some countries, the "Big Five", namely, bubonic plague, Asiatic cholera, small pox, typhus and yellow fever. They have been dramatic in their behavior, killing quickly and in large numbers, and moving, often rapidly, over large regions of the world. They are the diseases around which the quarantine systems of the nation for the past 400 years largely centered, and are the diseases covered by the International Sanitary Conventions. On the whole, they seem, at present, to be on their way out. We do not fear them as we did, though they require now, and will require careful watching in many parts of the world. This is especially true of typhus in its several forms.

Again, there is a second group of diseases less spectacular on the whole but more insidious, and often, in the long run, more deadly. This group includes tuberculosis, malaria, venereal diseases, influenza, (including colds) dysenteries, leprosy (in places) and some of the contagious diseases, notably, diphtheria. Gay, in his comprehensive work on Infectious Agents, states there are only four infectious diseases (really groups of diseases) that are universal in the world and names them as follows: the venereal diseases, (syphilis and gonorrhea,) tuberculosis, (human, bovine and avian) measles (and related contagions) and the influenzas. All these occur in this second group.†

Nearly all the above diseases we fear now more than we do the old "Big Five" of quarantine fame. But these diseases are being steadily conquered and most of them at present are receding rather than advancing.*

Again new diseases or diseases with which we are not well acquainted, especially epidemologically, are coming to the fore or just on the horizon, as it were. In this group we may include tularemia, epidemic jaundice, ornithosis, virus pneumonia, meningitis, enchapitis, poliomyelitis, murine typhus, Rocky Mountain spotted fever, filariasis, scrub typhus and some other tropicals now emerging under war conditions. Most of this group seem to be making headway, somewhere in the world. No doubt we know enough to curb most of them if we could apply our knowledge. All are being observed and in many regions much is being done to control them. But, as to the future of many of them, we have not a feeling of confident security. Only time can determine their ultimate course. We may be fairly sure that some of them or, perhaps some others, about which we know at present little or nothing, will, in the coming decades or centuries, give us as much concern as have many of the epidemic diseases of the present or the past.

The late Wendell Wilkie wrote a book "One World" which has been read by millions of people all over the globe. In this comprehensive

† No doubt some would amplify this list by adding especially the staphylococcus and strepto-pneumococcus groups and perhaps some others.

* In this connection it is somewhat startling to note that diphtheria has turned out to be the leading epidemic disease of the recent War in Europe. Stowman, J. A. M. A. 1945, Vol. 128, p. 185.

statement of globe problems a mere page or two was devoted to disease and to health problems. Yet today more than one half of the people of the world live under primitive health conditions, with practically none of the benefits of modern medicine and with death rates of 20 to 40 or more per thousand. Furthermore, as already stated, we know enough of many preventable diseases, as they behave at present, to control them either completely or to some degree. Now and following this global war, vast regions in various parts of the world, are being explored and made accessible for the first time to modern medicine.

In the present and forthcoming reorganization and reconversion program now being arranged all over the globe, there certainly should be a larger place for medicine and one worthy of its importance. The cost of a few battleships would go a long way in setting up such world programs. The Health Division of the old League of Nations was about the only part of the League's program that worked successfully, and which, by the way, is still operating. There are, in addition, a dozen or more effective regional or world groups or associations now in existence, all anxious for the creation of a comprehensive global health and medical program.

Lincoln said a country can not exist half free and half slave. Neither, in the long run, can the nations of the world live half clean and half infected.

And all the things said in this paper should remind us of an old saying that "no sickly people can be a great people."

The marked reduction in birth rates in occupied Europe may be due to multiple causes, possibly quite remote from wartime undernutrition, but the increase in infant mortality rates, in infantile rickets, and in tuberculosis among children is probably related to undernutrition and malnutrition. Foreign Letters, J.A.M.A., May 6 and 27, 1944.

Routine x-rays of patients, nurses, and other hospital employees will not only disclose unsuspected tuberculosis which is extremely important to the individual, but will also protect other patients and employees from the danger of infection. As more and more states are making tuberculosis a compensable disease, this factor will become increasingly important to hospital administration. Karl H. Pfeutze, M.D., Mineral Springs San., Cannon Falls, Minn.

ALCOHOLISM, A MEDICAL PROBLEM

R. S. Sabine, M.D.
MURPHYSBORO

In keeping with the precedent established by previous meetings of the Southern Illinois Medical Association, it becomes my duty and privilege, as President, to address you upon some subject pertinent to medical thought and ideals. It has been my opinion that the address of the president at our annual meeting should be along some line that will stimulate this group of men and women to go from this meeting with more determination to carry on the work of medical men, namely that of fighting the diseases of humanity and putting into practice the most effective therapy to cure or alleviate the sufferings of humanity.

With this thought in mind I have chosen a subject which will no doubt, be considered unusual. It may, indeed, be considered by some entirely out of order. It is, I admit, a subject that we, as doctors, have by-passed.

For forty years I have spent the greater part of my time in medical schools and hospitals, I have practiced medicine and surgery to the best of my ability, I have attended medical meetings and post-graduate schools of instruction, but, I am forced to admit that I have seldom heard a scientific presentation of the subject of which I wish to speak.

Yet during these forty years I have seen many lives snuffed out, many bodies torn and limbs broken, many patients sent to the insane asylums, all directly or indirectly because of the use of a drug, a drug so universally used in this day throughout the world that it has become a menace to civilization.

I am speaking of the drug alcohol.

It is my opinion that the ravages produced by alcohol upon the human body and intellect equal or excell in degree the ravages of either cancer, tuberculosis, syphillis, or any one of the other diseases which we, as doctors, spend our lives in fighting.

Historically, the use of alcohol can be traced back to earliest times. It is a curious fact that man has always found some drug which has the power to blot out, at least for a time, the realities of life, some drug that offers him an escape.

Presented as the Presidents address before Southern Illinois Medical Association in Carbondale, Ill., Nov. 9, 1944.

Possibly the best example is found in China, where opium is so universally used. Here we see millions of persons literally drugged. The use of alcohol has not been confined to any one nation but has been common to almost every race.

Samuelson[1] in his *History of Drink* states that in every nation there has been a period, just preceding the time of highest culture when alcoholism has been prevalent, but, during the period of highest culture there has been a drop in the use of alcohol. He states that during the decline from the state of culture the use of the drug has again become prevalent. The Greeks in celebrating the feast of the god Bacchus were given to orgies of intoxication but later, when culture was at its height, this intoxication was replaced by expressions in the fine arts. Again, in the early days of the Renaissance, sensualism and excessive use of alcohol were prevalent. As this condition receded there was an intellectual and moral awakening that affected all of Europe. In the early days of American history, the pioneering years, when men were undergoing the hardships of the frontier, alcoholism was common. Then followed a wave of temperance and a rise in culture, lasting for something over a century.

Today are we in a period of decline? We find a tavern in every block and almost on every crossroad, while most hotels combine bar and dining room. There are two taverns to every church, three to every public school. Under the stress of war and the strain of competition to which we are subjected in this day of materialism we are seeking escape from the realities of life by drugging ourselves with alcohol.

It would be improper at this time to go into too great detail in discussing the effects of alcohol upon the human economy, for you, as doctors, know well its effects. But let us consider briefly its effects as we would the symptoms of any disease.

Alcohol is a narcotic drug.

It is rapidly absorbed by an empty stomach, less rapidly by a stomach containing food. Only 2% is eliminated by the lungs and the kidneys; the remainder is taken up by the body fluids and undergoes oxidation.

It forms no tissues; it cannot be stored as energy; it offers no protection to body tissues.

It tends to neutralize the vital alkaline reserve by furnishing an excess of lactic acid.

No other drug is so remarkably diffusible, so quickly invades lymph, cerebral spinal fluids, bile, pancreatic juice, saliva, and even the amniotic fluid surrounding the unborn babe.

It is an irritant to the mucosa of the stomach and intestines, producing profuse mucous followed by nausea and vomiting.

Its chief effect however, is upon the nervous system. In this it has the peculiar property of removing the individual's repression, reserve, and inhibition, giving him a false sense of power and increased ability. Small amounts produce a sense of exhilaration and a general feeling of well being. It decreases the feeling of fatigue and gives to the individual an increased jollity and the idea of enhanced capacity for accomplishment and co-incident importance. The timid become brave, the silent become talkative and oratorical, and the songless ones are ready to soar to high C on "Sweet Adeline." Alcohol is an extremely effective agent for rosily blurring and softening the rigid and forbidding outlines of reality. It is a buffer between the individual and the disturbing impacts of unpleasant truths which he must face in his environment. This particular property doubtless explains the use of the drug by so many and, if these were the only things which alcohol could do to us, its use might be tolerated.

But let us examine more closely the effects of this drug. Although a drinker's speech may seem brilliant, it is often superficial in character. His movements are livlier, but poorly integrated and less accurately co-ordinated. A person who has taken a small amount of alcohol will make more errors, as, for example, in the addition of figures or the use of the typewriter, than he would have if he had not taken the drug, and at the same time he, because of a feeling of confidence, is unaware of his inferiority and actually believes he is better than usual.

On the organs of the special senses, especially the eye and brain centers, alcohol has a most unfortunate effect.

In small amounts alcohol causes a delay in response reflexes or trained responses to signals ranging from 5% to 15% of the usual response time and, at the same time, due to the release of

reserve and inhibition, the individual possesses a false sense of efficiency, and the rights of others dwindle in importance as his ego is inflated.

In order to interpret this effect more clearly, may I give you the results of scientific tests made, using two groups of fifty men each.[2] To the one group was given 1½ ounces of alcohol, the amount found in three ordinary highballs. The other group took no alcohol.

First: It was proven that those taking the alcohol were 9.7% slower in reaction to sights of danger than those who had not taken the drug. That is, if driving an auto at forty miles an hour, those of the alcoholic group would be five to eight feet nearer the danger before deciding that something should be done than those in the control group would be.

Second: The test showed that, after deciding that something should be done, those in the alcoholic group had a time of response in performing the necessary muscular action to avoid the danger, 17.4% slower than those in the control group had.

Third: A test was made to determine the power to concentrate the attention, as, for instance, in approaching an intersection where cars may be coming from different directions at the same time. In such a test, the highball men made 35% more errors than the control group.

Fourth: A test was made to determine the ability to co-ordinate the eye, hand, muscles, and concentrated attention, all of which are needed in safe driving. In this test the alcoholic men made 59% more errors than the control group.

These are facts scientifically established which should awaken us to the dangers of the use of alcohol upon the highway in this day of high speed.

Before the beginning of the present war, when the rate of speed was limited only by the horse power of the car, accidents, as you know, were appalling. Efforts to save many of the mangled bodies were fruitless and, before coroner's juries, you and I testified that this or that young person, man, woman, or child had died as the result of a fractured skull, cerebral hemorrhage, etc., due to an auto accident, when we knew deep down in our hearts that they had died because a driver's brain had been fogged by alcohol. More than 30,000 died in a year in automobile accidents and it is a matter of record that, in twenty-six states, 18% of these fatalities were directly due to the lessened efficiency of mind-muscle control caused by alcohol.

In New York City from 1928 to 1938 investigations, in which actual laboratory estimation of alcoholic content found in the brain of pedestrians killed by automobiles on the highway proved that over 30% were intoxicated at the time of fatal accident.[3]

54% of pedestrians killed by elevated or subway trains during this time were intoxicated, this fact also was proven in the laboratory examination of the amount of alcohol found in the brain.

Persons under the influence of alcohol loose all sense of care for themselves and traffic rules have no meaning for them.

If these fatalities have occurred in the traffic of today, what may we expect, following this war, when the airplane becomes a common means of travel?

What has been said so far applies to the use of only small amounts of alcohol. Larger amounts produce a more dramatic picture. The drinker undergoes mental confusion, loss of memory, change of personality. Some become noisy and boisterous, others sullen and quarrelsome. Association of ideas, initiative, reasoning, and judgment are all impaired, while emotional responses are explosive. Finally a drunken stupor ensues.

If drinking is continued over a period of time, a very large per cent of habitual so-called social drinkers undergo a depreciation of mentality and personality. They unconsciously pass into the class of abnormal drinkers, for the most tragic result of continued drinking is that the drinker developes a craving for alcohol comparable to the craving of the addict for morphine.

I can mention only a few of the effects of chronic alcoholism, but they are many. Certain types of neurotic or psychopathic persons need only a small amount of alcohol to bring on a trance in which they may do sensible things but are more apt to commit crimes or behave absurdly. Our hospitals for the criminal insane are full of such cases. Only recently at such an institution I talked with á doctor of excellent education and polished manners, but, who was an inmate of the institution. I was told that a

few drinks turned him into a moron. He was there convicted of the attempted rape of little girls. Another inmate had been convicted of the murder of five persons with an ax while under the influence of alcohol.

You have seen the person with delerium tremens as he fought or lay trembling in terror, seeing all sorts of terrible visions. I well recall a patient, a chronic alcoholic, who following an appendix operation, fought in such delerium for seven days when, in spite of all treatment given, he died of exhaustion.

It is well recognized that alcoholics are poorer risks for surgical operations than non-alcoholics. They also possess less resistance to infections and all serious diseases, such as pneumonia. The power of the white cell, that great defensive agent of the blood is reduced by the use of alcohol and mortality thereby increased. This fact has been proven in the laboratory as well as clinically.

The most powerful artificial or drug excitant to sexual excess is alcohol. More instances of syphillis and gonorrhea in young of both sexes, whose sober good intentions are to avoid extramarital sexual connections, have been due to alcoholic abuse than to any other cause. Alcohol in even small quantities lowers self restraint and self control in situations of sex temptation so that exposure to hazards of sexual diseases is undertaken thoughtlessly and without care for the consequences. A few days ago a fine looking young man came into my office and asked for an injection of bismuth, a drug, as you know, used in the treatment of syphillis. To test the truth of the statement which I have just made to you, I asked him if he were not under the influence of drink when he contracted the disease. He replied that he had been and that had he not been out on a little drinking party this thing would not have happened to him and that this was the most regretable experience of his whole life.

Alcohol is the best procurer known and is the constant and essential stock in trade of prostitution.

It is difficult to estimate the number of persons affected by alcohol. One authority estimates that there are at any given time in this country 200,000 addicts,[4] that is persons who are so enslaved by alcohol that they cannot help themselves, and 600,000 chronics, or persons who have developed some disease other than alcoholism as a result of the use of alcohol. These figures seem too small when we judge from our own observation of the members of our own communities. But they would be enormously larger if there were not so many of us trained never to use the drug. Dr. Robert S. Carroll, founder and medical director of Highland Hospital, Asheville, N. C., where a great many alcoholics are treated, makes this astounding statement, "It is startling to think that in our land, one out of three, whom we meet, is incapable of continuing any form of alcoholic usage without courting a very present danger of being wrecked or damaged by its potency."

That alcoholism is on the fearsome increase is shown by the statistics of insurance companies.[6] With hardly an exception these companies guard their finances by the rejection of, or increased rates on, alcoholic applicants for life insurance. One company reported for the five years ending in 1940 an increase of 183% of rejections for disability due to alcohol in the individuals under the age of thirty.

Since this paper is an effort to present only the medical phase of alcoholism, I cannot take time to touch upon the effects of alcohol upon a man's or woman's social, spiritual, economic, and home life, which after all constitute the most damaging effects of this drug.

Some may contend that this whole question is not a medical one but purely a personal matter. When, however, we note that the largest single cause for admission to the New York City hospitals in 1936 was drunkenness, just the ordinary "drunk" not including the thousands under treatment in these same hospitals for the diseases directly caused by alcohol, we are forced to admit that alcoholism is a medical problem. One hospital in Boston reports that it spends $370,000 a year in efforts to salvage drunkards. In our own state of Illinois 3,000 habitual drunkards appeal yearly to the courts of the state to be adjudged insane in order that they may receive treatment and the state must support these alcoholics for an average of 280 days at the cost of half a million dollars.[6] This overcrowding of hospitals by alcoholics is not only a great expense to the taxpayer but is a serious

problem for our institutions now understaffed because of the war effort.

Some who will agree that this is a medical problem will never the less say, "Men have always used alcohol and always will. If they want it, let them have it. Men and women should learn to handle their liquor. What can doctors do about it anyway?" If we admit, however, that alcohol does harm the body, intellect, and personality of men and women does it not then become our duty, as doctors, to try to do something about it?

I believe the members of the medical profession should be ever ready and willing to combat every disease and the use of any drug that has a tendency to lower the vitality of our patients. for purely medical reasons, if for no other. As doctors, we are in ceaseless search in the laboratories to find the causes of diseases, and we make endless experiments to find remedies for them. We spend a great deal of our time in educating our patients and the general public in ways to avoid disease and in the care of the sick. The state and federal governments are spending millions of dollars and building hundreds of hospitals to aid us in our work. How much of our time are we, as doctors, using to educate people concerning the effects of alcohol?

Here is a train of maladies that could be most easily prevented by persuading people to abstain from the use of this drug. Why can we not tell them that alcohol is a harmful drug which, like morphine, creates a habit and inform them, especially the young, of the effect of its use? Why cannot we see to it that these effects be effectively taught in our school under the head of physiology and hygiene? The young do not know that this drug is a source of danger. They see only the so-called social side of its use. They see their favorite hero or heroine in the movies drinking with such grace that they are charmed. Let us let them know the end results.

We can lift our voices as men of science, whose sole training and ambition is to protect human life, men, who have the respect and confidence of the people, to whom they look for guidance in matters of health, in creating a sentiment against the use of alcohol. Until public sentiment is aroused and people realize the danger, little can be done to control or eradicate the use of alcoholic beverages, for those who make and sell them for financial gain have so popularized their use by movie, radio, and the press that drinking has become the smart thing to do.

We have had remarkable success in educating the public to avoid other kinds of diseases. Our patients are now eager to be vaccinated against various diseases although there was much opposition to this at first. Taxpayers are willing to spend large sums of money to get a pure water supply and thus prevent typhoid. Who first made them aware of this need?

It is interesting to contrast the success we have had in educating the public against the use of the narcotics, morphine, heroin, and marijuana with the lack of success to the present time, in educating them to avoid the use of alcohol. No morphine is sold in public resorts in our country today as it is in China. Government agents constantly check even the very small amounts we doctors prescribe. The League of Nations had a commission at work to prevent the production and sale of morphine internationally. But how much money does the government — local, state, or federal — spend to fight the widespread use of alcohol?

As I wrote this paper another interesting contrast came to my mind. Recently in an English laboratory it was discovered that the broth from a certain kind of mold possessed the magic power to combat infection. The medical world was quick to grasp the importance of this discovery and now great plants are being built so that suffering men may regain health and thus be returned to normal productive life and to their family circles. What a contrast penicillin presents to alcohol! Great stills are built in both cases. Millions are invested in plants to manufacture alcoholic beverages which do not heal as does penicillin, but rather brings on disease, which do not restore the user to productive work but lower his ability to do it, which do not return him to his family circle but debase the finer sensibilities and bring suffering to the home life.

Is it not time for us as intelligent citizens and as doctors to speak out for sober thinking, for a clearer vision of our present condition, and strive for some concerted action to curb this malady which has always cursed humanity? As doctors, let us meet the challenge of this enemy

of men. Let us fight alcoholism in the same intelligent and fearless manner in which we have fought to eradicate tuberculosis, typhoid, and malaria. We, who have dedicated our lives to the sacred duty of guarding the health of our people should be in the front line in combatting, in every way, the spread of alcoholism which, like an epidemic of some dread plague now sweeps over the whole world.

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PUBLIC ASSISTANCE FOR THE BLIND IN ILLINOIS

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Director, Illinois Public Aid Commission
SPRINGFIELD — CHICAGO

The Illinois Public Aid Commission has had the responsibility for the administration of the Blind Assistance Act since its passage in June of 1943. This act provides, as its name implies, assistance to needy blind persons and its provisions are such that Social Security funds are made available to meet 50% of the cost up to a maximum of $40.00 per month to a recipent.

Illinois had pioneered in assistance to the needy blind, being the first State in the Union to provide a pension for the needy blind. This law remained operative until the passage of Social Security legislation made it no longer necessary. This old law was passed in 1903 and was repealed in June, 1944.

Benefits under the old law were paid from state and county funds, while under the new law they are paid from state and federal funds. The old law provided a flat $30.00 pension to all beneficiaries whereas, under the new law, benefits are made available in accordance with need, up to a maximum of $40.00 a month. Property and income limitations under the old law were a fixed amount. Under the new law, they are related to the ordinary living arrangements and need of the individual. In addition, recent action by the Commission makes it possible to meet medical expenses over $40.00.

The Commission, at the beginning of the administration, recognized the need for skilled assistance in planning for the administration of this program. A Committee was, therefore, appointed to advise on the social and medical aspects of the program. The following persons were members of that Committee: Dr. Watson Gailey, Mr. Herbert F. Geisler, Dr. Harry S. Gradle, Miss Audrey M. Hayden, Mr. Samuel S. Holmes, Mr. Frank M. Lay, Dr. Charles H. Phifer, Dr. Walter Stevenson.

The medical members of this Committee have continued to serve as a technical advisory committee to the Commission. They have given generously of their time and knowledge and have contributed in no small measure to any success which the program may have had. Dr. J. R. Fitzgerald has served as Supervising Ophthalmologist for the statewide program from the very beginning and has performed a monumental task in determining the eligibility of persons in relation to their blindness.

In accordance with the provisions of the Blind Assistance Act, the Commission adopted a definition of blindness and selected the one set up by the House of Delegates of the American Medical Association. After a year's experience in the use of this definition, it was determined that the definition imposed certain inequalities so far as visual handicap is concerned. For instance, persons whose only visual handicap is a loss of visual acuity are not nearly so handicapped as persons who have lost the peripheral field of vision. In addition, there were some ocular conditions which constituted a visual handicap but could not be measured in terms of visual acuity or field loss.

Dr. Fitzgerald, with the assistance of our Sub-Committee on Ophthalmology, then formulated the new definition of blindness which became effective March 15, 1945. The new definition reads as follows:

"In terms of ophthalmic measurement, central visual acuity of 20/200 or less in the better eye, with correcting glasses, is generally considered economic blindness. A field loss in which the visual field efficiency is reduced to 30 per cent or less may be considered equally disabling, as may certain ocular conditions which do not necessarily involve visual acuity or

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peripheral field loss, but which constitute severe visual handicaps."

It is believed that this definition expresses the intent of the General Assembly in framing the Blind Assistance Act better than did the previous definition, because it more nearly equalizes the two types of visual disability through converting the ophthalmic measurements to percentages, giving additional weight to the handicap of loss of visual field, and making it possible to give consideration to persons who were disabled by such conditions as an essential blepharospasm, or an oculogyric crisis.

The Blind Assistance Act has as its purpose, the assistance of "needy blind persons" who have reached the age of 18, so the applicant for such assistance must furnish evidence of financial need, verification of age, and proof of blindness. Need is determined by an investigation of the applicant's resources, such as real and personal property, insurance, bank accounts, and the ability of his family to support. If this investigation establishes need, the applicant has an ocular examination by a physician skilled in the diseases of the eye to determine whether or not he is blind.

Upon the recommendation of our Sub-Committee, the panel examiners in the Blind Assistance program in Cook County were limited to those ophthalmologists who had been certified by the American Board of Ophthalmology. However, the large number of examinations and the scarcity of certificated men in downstate Illinois, made it necessary to request the services of other men who had an eye, ear, nose, and throat practice. The names of these men were submitted to the Committee for their approval before they were invited to participate. At this point, I wish to commend all of those physicians who undertook to help us in doing these examinations. The ophthalmologists of this State examined about 5000 applicants for Blind Assistance in a period of nine months, in addition to carrying on their normal practice. It was a tremendous job — very well done.

Wherever possible, the applicant is given the names of panel examiners in his community and is permitted to choose the one he wishes to do the examination. The examiner reports his findings on a form which the Commission supplies and mails it to the Supervising Ophthalmologist (Dr. J. R. Fitzgerald) who reviews and evaluates the findings in terms of the definition I read a few moments ago. If the recorded evidence of the ocular findings substantiate or prove the applicant's vision is consistent with the opthalmic measurements of the definition of blindness, Dr. Fitzgerald certifies that he is blind. The Blind Assistance Act requires that all recipients have ocular re-examinations at the discretion of the Supervising Ophthalmologist, or at least every three years unless excused from further examinations by the Commission.

At the time this program began, there were 6790 persons receiving a blind pension from the various counties. Most of those persons made application for Blind Assistance but a large percentage were rejected because they had sufficient resources, or were not in need of assistance. Some 10% were rejected as "not blind" after an ocular examination. In April of this year there were 5188 persons receiving an average Blind Assistance grant of $33.30; 1910 of these persons reside in Cook County.

We often think of assistance in terms of money, but in actual practice we find our Blind Assistance recipients in need of many services, one of which is medical care. The ocular examination reports and the examiners' comments have given us indications of some of the medical needs of our recipients. The recommendations for treatment of the eye condition and, sometimes, of a physical condition, are forwarded to the county departments when notice of eligibility or ineligibility is sent. The county department visitor then discusses the problem with the recipient, and if he is not already under care of a physician, attempts to plan for such care. Through this medical assistance program a definite contribution is being made toward the total effort to control infectious conditions such as trachoma, and syphilis, to sight conservation programs, and to correction and amelioration of general health problems. One of the direct results of medical assistance has been the improvement of vision of 86 persons by helping them to make arrangements for cataract surgery. Most of this surgery has been done through public institutions such as the Cook County Hospital and the Illinois Eye and Ear Infirmary, except in a few instances where relatives or other interested persons have contributed the cost of

care by private physicians or clinics.

In the Blind Assistance program, the medical needs of the recipients for care other than restorative surgery are met through an increase in the assistance grant, and through payment from State funds for certain expenses. The costs of physicians' service, drugs, appliances, nursing service, hospital care, and nursing home care are met in this way. There are some needs which arise because the person is blind, so there are special allowances for such items as guide service, telephone service, and educational recreational material.

Other services which Blind Assistance recipients may receive, are related to social and economic rehabilitation. Examples of such services are the following: finding a nursing home for the Blind Assistance recipient who needs some nursing and personal care in addition to board and room, making arrangements for another recipient to live in town for a few months while taking lessons in Braille. An illustration of the complex need of our recipients is presented in the story of a downstate man who was blind at the age of 21 because of trachoma.

Our visitor called to discuss the ophthalmologist's recommendations which had accompanied the statement that he was visually eligible for Blind Assistance. There was no hope of improving his vision — all that treatment offered was a degree of comfort and protection to others. Leslie had never received treatment for his eyes because his mother thought there was no profit to be derived and she had little faith in the services of the facilities available in the community. The father also has trachoma but the mother and six siblings have not caught the disease. The visitor instructed the mother in those hygienic measures which would protect the other members of the family and asked the County Nurse to call at this home in a further effort to obtain the family's co-operation in a plan for treatment of the trachoma. Leslie quit school in the second grade because he could not see. He is incapable of caring for himself so depends upon his mother. For the most part he sits in his chair most of the day with his head hung and his cap drawn low over his eyes. Finally, the visitor learned he could do a few things with his hands. He likes to make small wooden windmills which show the direction from which the wind comes. He has several of these about the place and proudly displayed them to the visitor. He also had made a few keys from old scraps of metal and said he would like to do such work as this. The visitor secured some old material and gathered up quite a few keys for him to copy, then took them to him. Leslie also stated at the time of the last home visit that he would like to try to raise some pigs but he was afraid that if he did this, the amount of his pension might be decreased. He was given to understand that his income would be applied to his other needs first, so, if as he said, his brother would give him a start of pigs, it would be a very fine thing for him to take care of them and help provide meat.

When Leslie's interest was aroused, a referral for home teaching was suggested. This Leslie desired, and in order to learn to do things with his hands, he finally undertook treatment to render his trachoma inactive, because the home teacher could not help him until the trachoma became non-infectious. After this man learns to do things for himself it will be possible to attempt some form of vocational training.

There are many situations in which the recipient needs the services of agencies skilled in special areas. When this is the case, referrals are made to the agency that offers the service needed. To facilitate such referrals, the Commission has worked out co-operative agreements with the Division of Visitation of the Adult Blind, Division of Vocational Rehabilitation, Illinois Eye and Ear Infirmary, Cook County Hospital, the sheltered work shop of the Department of Public Welfare, Trachoma Clinics, and many private social and welfare agencies.

Because the county department staffs had little experience in the area of service to blind people, it was necessary to give them an understanding of the problems caused by blindness. The American Foundation for the Blind has helped with this problem by sending staff members who conducted institutes throughout the State.

Illinois has done much to improve and extend programs of services for the blind, but there are areas in which we must make further effort to meet the needs of this group. I will mention a few of these problems: there are many newly blinded persons who need help in becoming ad-

justed to the handicap, but the services available are so limited in staff and funds this help is usually not available when it would be most effective.

There are many employable blind persons who are without special skills or who find no job opportunities in the small communities where they live. Are we going to "colonize" them in larger cities where all training facilities and job opportunities now exist, or are we going to help them become self-supporting in their own community? The same problem exists in respect to those who could be partially self-supporting through a home industry program.

There is an unknown number of infants and children under school age whose parents are in need of services to help them with the problems of rearing a blind child. Such service is not available anywhere in this State.

We have Braille classes in the Chicago schools but a blind child residing in any other community in the State must sever all his home ties and go to Jacksonville, or forego formal schooling, although there are State funds which could be used to reimburse the local school board for the additional expenses of his education in the public school.

There is a very fine and effective private agency for the prevention of blindness, the Illinois Society for the Prevention of Blindness, of which Miss Audrey Hayden is Executive Secretary, but there is no State agency for follow-up of those who will eventually become blind if medical care of the eye condition is not insured. This should not be the responsibility of the private agency, which does a research and educational job, pointing out needs for which government should make plans.

IMPORTANT

Send changes of address to 30 N. Michigan Ave., Chicago 2, Illinois, enclosing label from a copy showing your old address. Changes received after the 1st of the month will not go into effect until the following month.

SPIROCHAETES IN FECES

LIEUT. COL. G. HOWARD GOWEN*
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While carrying on a certain research problem in North Africa we had occasion to make numerous darkfield examinations of feces. The frequency with which spirochaetes were found and the dearth of information on this subject in the average textbook of bacteriology led us to record the observations made.

Studies were made on 199 patients in a general hospital. Of these, 140 were cases of epidemic hepatitis and 59 were miscellaneous nonfebrile medical cases. Approximately 300 fecal darkfield examinations were made. On the basis of one stool examination spirochaetes were found in the stools of 24 per cent of the patients with epidemic hepatitis and of 23 per cent of the miscellaneous cases. When examinations were repeated on the initial negatives among the cases of hepatitis, the number of positives found increased from 24 to 30 per cent.

The spirochaetes appeared to be of the Borrelia type. They were quite flexible, had shallow wavy spirals as a rule, and tapering pointed ends. The length varied approximately from 8 to 15 micra, and the width was about 0.25 micron. Most of the organisms contained two to three spirals, but longer ones were not uncommon, the maximum number of spirals being five or six. In most instances the spirochaetes were sluggishly motile or had lost their motility. In other cases, however, they were actively motile. Fusiform bacilli were commonly present and occasionally occurred in large numbers. The organisms stained excellently with the Fontana — Tribondeau spirochaetal stain. Repeated examinations in certain individuals in whom they were demonstrated showed them to be persistent and to be present as long as four weeks after first identification.

Since we were at the time experimenting with small laboratory animals, as a point of interest, we decided to make similar observations on their intestinal excreta. Of 16 white mice, two showed similar spirochaetes in the feces. The stools of three rabbits failed to reveal such organisms. In 12 autopsied guinea pigs darkfield examinations were made of the contents of the small and

*The author is on leave of absence from the School of Public Health, University of Michigan, Ann Arbor, Michigan.

large intestines. Spirochaetes were not present in the small intestine, but in 11 instances they were found in the large intestine. In the guinea pigs the longer type of spirochaete predominated. In both the mice and guinea pigs active motility was more consistently present than in humans.

Since the spirochaetes found in humans had no etiological relationship to the malady present, it can be assumed that their presence represented more or less a normal picture. It would not appear that diet was an influencing factor since the cases of hepatitis were on a low fat diet and the others on a general diet.

If the findings in guinea pigs may be considered to be of significance, apparently the habitat of such spirochaetes is in the large intestine and not in the small intestine.

In a study of 543 penile lesions we found significant numbers of spirochaetes of the Borrelia type and fusiform bacilli to be present in 8.5 per cent of the cases. If we had included those instances in which these organisms were present but infrequent, the per cent of occurrence would have been higher. The source of these organisms at the time was debatable. Correlating our findings in the feces with the findings on the penile lesions, it is suggested that contamination of the penile lesions may have occurred as a result of deposits of the fecal flora on the genitalia. This would be particularly favored in military life due to the difficulty in maintaining meticulous personal hygiene.

SUMMARY

1. In 199 persons studied, approximately one out of every four showed the presence of spirochaetes of the Borrelia type in the feces. This could probably be interpreted as representing the normal picture.

2. A low fat diet did not seem to influence the frequency of this occurrence.

3. Observations on guinea pigs suggest that spirochaetes are normally present in the large intestine but not in the small intestine.

4. Spirochaetes form a part of the normal flora of the feces of mice and guinea pigs as well as of humans.

5. It is suggested that since spirochaetes of the Borrelia type are commonly found in the feces, fecal contamination of penile lesions may account for the presence of similar organisms in such lesions.

Acknowledgement is made of the valuable technical assistance of F. C. Heneman, Jr., Technician 4th Grade in the above studies.

EXAMINATION OF STRABISMUS PATIENTS WITH INDICATIONS FOR TREATMENT

GEORGE GUIBOR, M.D.

CHICAGO

The problems occurring in the treatment of strabismus in children differ in many respects from those arising in the treatment of similar neuromotor disturbances in adults. We must realize that the child has a greater ability for recovering from motor disturbances than the adult. This fact has been demonstrated by Margaret Kennard, who removed portions of the cerebral cortex from infants and mature monkeys. The motor disturbances resulting from these ablation experiments were similar in both groups. The degree of recovery, however, among the younger monkeys was considerable, while that of the mature group was small. Thus the hemiplegia resulting from ablation of the unilateral cerebral cortex decreased or disappeared in the infants probably as a result of the growth or development of new association pathways in the motor system. The hemiplegia persisted in the adult because of the inflexibility of the nervous system.

A second reason may be given which helps us to understand why the problems of treating strabismus in children are different from those involved in treating squint in adults. This is the fact that the neuromotor coordinating mechanism for the eyes in children is relatively undeveloped while that in adults or youths is developed and more fixed. Therefore, many squints in children are variable while those in older groups are constant. This allows the possible development of new association pathways, and new conditioned reflexes in the child. We must all agree that it is difficult to teach an old dog new tricks. This results because his motor pathways are more fixed than in a pup. In fact it is

From the Department of Ophthalmology, Children's Memorial Hospital, Chicago.

Presented before the Section on Ophthalmology, Illinois State Medical Society, May 16, 1944.

at times impossible to teach an old dog any tricks.

A third fact to be remembered is that the degenerative components of squint are rare in children. Contractures of the internal recti and relaxation of the externi are not seen as often in children as in adults. This fact compels the oculist to employ surgery more often in treating adults with squint than in treating children.

Fourth, one must remember that the causes of squint in children are often different from the causes of motor defects in adults. The causes of motor defects in children may be: (1) congenital or familial deficiencies, (2) refractive errors, (3) mechanical distortions of the orbit, (4) childhood infections, especially pertussis, (5) encephalitis, (6) anoxemia and trauma which occurred during birth, and (7) fusion disturbances. The common causes of squint in adults are: (1) trauma, (2) syphilis, and (3) vascular accidents.

Finally, a child is more amenable to nonsurgical technique. He accepts an overcorrection of his ametropia, occlusion, and atropinization of his eyes without complaints; whereas adults often complain considerably when given such treatments.

From these observations we must conclude that the diagnosis and the treatment for squint in children should be different from the diagnosis and the treatment for the corresponding defect in adults. The average child has excellent ability to recover from his ocular motor defects because he has an undeveloped neuromotor system, fewer degenerations in his muscles, and will cooperate better than the adult. Finally, the immediate causes of squint in adults are different from the causes of childhood squint.

In this treatment of children with strabismus one must decide upon the cause of the deviation if possible, upon the type of treatment, and length of time which will produce the best cosmetic and functional results. In order to make these decisions, let us ask ourselves what we are attempting to do when treating squint. The oculist often believes that we are treating the fusion center. The neurologist tells us that we are treating motor areas located in the frontal and occipital cortex, visual centers and pathways leading from them to the occipital cortex, proprioceptive pathways, and the association centers joining these three groups or components. If these components — motor, visual and proprioceptive are to be treated, what methods of treatment will give us the desired results? Let us ennumerate the methods which involve the use of: (1) refraction (2) cycloplegics (3) prisms (4) occlusion (5) fusion exercises (6) general medical treatment (7) surgery and (8) combinations of these.

In order to select the proper treatment from such a therapeutic aramentarium one must thoroughly understand the type of squint involved, that is, whether it it esotropia or exotropia, supranuclear or infranuclear. It also must be understood that the time consumed by the treatment of choice will depend to a very great extent upon the age of the child.

Squint must be recognized as the result of disturbed neuromotor function so that binocular vision and binocular fixation are absent. In other words, the problems of treating squint are problems of neurology. Allow me to present an example to demonstrate my point. Does the neurologist say to the mother of a child with a spastic hemiplegia, "Unless your son recovers in six months he should have some operative treatment?" No, he does not. He recognizes the fact that the defective motor centers in the cortex of the cerebrum must become reorganized so the compensation in other centers may occur. Thus only when mechanical defects occur does he consider surgery. Such defects are contractures of spastic muscles or a relaxation of their opponents.

The oculist should do likewise. He should realize that time is required to produce improvement in the defective motor centers which should control the movements of the eyes and that a few months to one year are not always adequate to wait before doing surgery. These motor centers in order to become reorganized must be given nonsurgical help in the form of glasses, prisms, cycloplegics and orthoptic exercises. Only when recovery is incomplete after years of this treatment should surgery be undertaken.

On the other hand, if a mechanical defect such as weakness of an external rectus occurs during this time, then surgery may be utilized to overcome this defect. Proper nonsurgical treatment, however, will often prevent such defects from presenting themselves.

Thus the treatment of a child with squint requires the use of some of the specialized methods just presented. Let us discuss these methods and the cases in which they are indicated.

Refraction. — Refraction is the determination of the errors of refraction and the prescribing of the necessary lenses to correct the ametropia. Of all the methods at our disposal this method of treating motor anomalies is the most valuable, especially if one includes the prescribing of prisms in his refractive routine.

The reason for this assertion is that a lens properly prescribed affects: (1) the accommodation (2) the convergence (3) the divergence (4) the vertical centers (5) the visual acuity (6) the fusion center (7) synaptic and association pathways (8) local stability of the eyes, and (9) general stability of the patient.

Prisms. — If, however, the motor defect is in the supranuclear pathways or centers then prisms are indicated to allow an approximation of the visual axes. This approximation will stimulate pathways and centers for binocular vision and will encourage other less defective motor centers than those allowing the squint to reorganize and take over the function of the defective centers. Thus the squint decreases not because the muscles have been aided but because the motor, visual and proprioceptive centers have been stimulated by the refraction and prisms. In order to bring about this reorganization, however, it should be clearly understood that the squint should be only partially corrected by prisms.

A number of general rules should be given to one who wishes to use prisms in esotropia.

1. The squint must be differentiated from the phoria.
2. The squint must be measured quantitatively in prism diopters at both far and near fixation with glasses and under a cycloplegia.
3. One third of the squint must be corrected by prisms, especially if the angle of strabismus is a variable one.
4. Objects are deflected toward the apex (apparently).
5. The apex is prescribed in the direction of the deviation as follows: Apex in for esotropia, apex out for exotropia, apex up for hypertropia, and apex down for hypotropia.
6. A greater amount of prism is placed in front of the fixing eye in patients with esotropia than before the suppressed eye.
7. In paralytic squint a greater amount of prism is placed before the nonparalytic eye than before the paretic eye. This is gradually reduced and the prism before the paralytic eye is increased until the visual axes are parallel.

Atropine. — To the author atropine is the second most valuable aid in treating squint. It not only blurs vision but is an antispasmodic. As such it is used in the eyes of infants too young to be refracted. Atropine is used to treat amblyopia by instilling the drops in the fixing eye, later in the amblyopic eye.

Improvement with atropine may not be apparent for several months except in cases of accommodative strabismus. Here, of course, a rapid or immediate improvement can be seen when the eyes are atropinized.

A cycloplegic is exceedingly valuable in cases of patients who have been operated upon. In these cases one wishes to keep the accommodative convergence relaxed for at least one month to allow the function of divergence ability to improve and to decrease the possibilities for sutures and for the fibrous connections between the bulb and the muscles from stretching.

Occlusion. — The covering of one eye or the alternate covering of each eye is valuable in improving visual acuity and in treating anomalous correspondence. In severe loss of visual acuity (20/65 or less) occlusion of the fixing eye is preferable to atropine. It is especially valuable in conjunction with the atropinization of the fixing eye.

Fusion Exercises. — The binocular simultaneous stimulation of both eyes by photographs or objects and their correlation and projection may be called fusion exercises. This training can be done with instruments such as the amblyoscopes or the prism stereoscopes. In most cases the prescribing of prisms is as valuable as the use of these instruments. The exception to this rule is that patients with slight heterophorias, accommodative disturbances and reading defects benefit more by fusion exercises.

The following defects are the ones which are most successfully treated by fusion exercises:

1. Accommodative esotropia.
2. Deviations of fifteen degrees or less.
3. Postoperative deviations — especially residual esotropia, exotropia, or hypertropia.

4. Dissociated vertical divergence.
5. Exotropia of 5Δ to 10Δ resulting from a convergence insufficiency
6. Reading disturbances in elderly adults without severe motor disturbances.
7. Hysterical amblyopia or motor insufficiencies.

Fusion exercises are not a cure-all and should not be attempted in every case of squint and especially in patients with fixed constant anomalous correspondence.

Surgery. — As has been previously suggested, surgery should be utilized when mechanical defects in the extraocular muscles are found. These are rarely present in children. Before the author considers using surgery for patients with exotropia he must know the history, the types of treatment, and the type of squint.

If nonsurgical treatment has not been adequate in the case of a child then surgical treatment is undertaken. Surgery, moreover, is suggested if the patient is ten years of age or older, if the patient does not cooperate in wearing his glasses or using atropine, or will not attempt fusion training.

Ordinarily the surgical treatment of children with squint is necessary in approximately half of the cases.

It is a pleasure to thank Drs. Richard Gamble and Douglas Buchannon for their help and criticism during preparation of this paper.

Most of our cases of active pulmonary tuberculosis in years to come will develop from the group of school children who are reactors to the tuberculin test today. It is important to stress that all such reactors should be carefully watched, X-rayed annually and, wherever possible, the source of infection traced to prevent further spread of the disease. When an individual reacts to tuberculin, two important facts are immediately established: (1) the individual is at least a potential case of clinical tuberculosis; and (2) there has been a source of infection which may be sought among contacts. Lewis S. Jordan, M.D., Journal-Lancet, April, 1945.

We heard about the tipsy pre-med the other night who called up Dr. Wasserman of national fame and when the good doctor answered the phone our inebriated friend said, "Hello, is this Dr Wasserman?" The voice said, "Yes." Our friend asked, "Are you positive?"

Columbia Jester

FIND DRUG MAY BE BENEFICIAL IN TREATMENT OF LEUKEMIA

Colchicine, a drug derived from the seed of the meadow saffron flower which grows abundantly in Europe and North Africa, has been found to have a beneficial effect in the treatment of acute myelogenous leukemia, a highly fatal disease.

W. Harding Kneedler, M.D., of Philadelphia, writing in the September 22 issue of *The Journal of the American Medical Association,* says that while no conclusions can be drawn as yet regarding the degree of beneficial effect of colchicine in this type of leukemia, "further trial of the drug for the condition seems justified."

Leukemia is a fatal disease characterized by the presence in the blood of numerous white cells, many of which are immature. The cause is unknown. In the acute type, ulcerative inflammation of the mouth or throat often marks the onset. Hemorrhages are common.

In the case reported by Dr. Kneedler in *The Journal,* colchicine was given in tablet form three times a day. The progress of the disease soon became less rapid, then improved. After losing 58 pounds, the woman patient showed a progressive gain in weight and strength. Transfusions were unnecessary for an eight month period.

After suffering several hemorrhages, the patient finally died.

Commenting on the treatment, Dr. Kneedler said that "colchicine was continued through the course of the disease, certainly without harmful effect and perhaps with actual though temporary benefit." He urged additional investigation.

Dr. Kneedler reported that Dr. O. H. Perry Pepper, also of Philadelphia, tried the drug in two cases of acute leukemia. It had no apparent effect in one case, but in the other there was complete halting of development for a while. "When relapse occurred the drug was resumed, but the further course of the disease was as would have been expected without the drug," he said.

The person who realizes that he has tuberculosis is more likely to take better care of himself and be more on guard against spreading his infection than if he is ignorant of the fact that he has the disease. John L. Rice, M.D., N. Y. State Jour. of Med., Feb. 1945.

Physical Medicine Abstracts

John S. Coulter, M.D.

COMBINED TREATMENT OF RHIZOMELIC SPONDYLOSIS

(Marie-Strumpell Arthritis)

Orthopedic, Roentgen Ray and Physical Therapy
Lenox D. Baker, M.D., Durham, N. C.

In ARCHIVES OF PHYSICAL MEDICINE,
26;7;394
July, 1945

Rhizomelic spondylosis, as the name implies, is a disease of the spine and root joints.

As a rule no corrective measures are attempted until all studies are completed and roentgen ray therapy has been given. The ray therapy gives early alleviation of pain with relief of muscle spasm and allows more rapid and less painful correction of the deformities. On relief of symptoms or after completion of one series of roentgen ray treatments as outlined in chart 4, corrective measures are started and physical therapy measures are begun. If any real benefit is to be derived from physical therapy measures, the patient must be relaxed and comfortable during the treatment. The patient with Marie-Strumpell arthritis usually has fixed deformities and is difficult to handle on the ordinary treatment table, especially when in the prone position. It was found that an operating table head rest, which is adjustable in all directions and which has attached shoulder supports, could be used to advantage in overcoming this difficulty.

Exercise equipment which was designed to aid in the correction of contractures in the anterior portion of the shoulder girdle, the thoracic cage and the abdominal wall and to help in developing the posterior shoulder girdle muscles and the thoracic bundles of the sacrospinalis muscle. In using the apparatus the patient stands against the wall pad and fixes the pelvis with the gluteal and lower abdominal muscles. The body strap is fitted snugly across the back and acts as a fulcrum over which the hyperextension forces act to correct the flexion deformity of the spine and to increase the excursion of the thoracic cage.

As the statistics show, the best results are obtained in the early stage of the disease. Experience with the combined therapy indicates that better results are obtained if the patient is hospitalized until full correction of the deformities is obtained and early signs of return of normal muscle power have appeared.

ELECTROSHOCK THERAPY IN PREGNANT MENTAL PATIENTS

Phillip Polatin, M.D., and Paul Hoch, M.D.,
New York City

(From the Department of Psychiatry, the New York State Psychiatric Institute and Hospital)

In NEW YORK STATE JOURNAL OF MEDICINE, 45;14;1563
July 15, 1945

Two pregnant patients with mental illness were treated with electroconvulsive therapy. One was three and a half months pregnant and the other seven months. There was no miscarriage or premature labor and no evidence of asphyxia of the children. Electroshock does not seem to have any clinical effect on the smooth muscle of the uterus.

BODY MECHANICS AND POSTURE

K. G. Hansson, M.D., New York

In THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 128;13;953
July 28, 1945

It may be said that physical laws applied to our body mechanics give the answer to the question if posture is related to physical health. Even mental health is affected by posture. There are many clinical evidences for the effect of poor body mechanics and health.

In congenital torticollis that has persisted for several years the child gets into the habit of photographing his surroundings on a certain field of the retina. The consciousness of such pictures is related to the child's appreciation of his position to his surroundings. Geotropic reflexes are built up which give the child the impression of being straight when his head is actually crooked, and vice versa. Therefore the cutting of the shortened sternocleidomastoid muscle and the shortened cervical fascia is only the beginning of the treatment.

The lateral curvature of the spine of the idiopathic type should be treated as a postural deformity, and symmetrical exercises should be instituted and carried on till the patient reaches at least his sixteenth year. Special attention to the patient's general health, as indicated by his vital capacity, is most important.

The use of postural exercises in low back pain has been confused a great deal. The confusion is due to the fact that the same exercises have been prescribed for all pathologic conditions in the lower part of the back. It should be emphasized that the exercises should be specific and should be based on the pathologic changes present. Dealings with low back patients are facilitated by the following clinical classification:

However, overwhelming evidence has been presented by Pemberton, Swain and others that the arthritic patient must be taught the proper use of his body as a whole as well as the various joints. Chronically ill patients may be much improved by instruction in body mechanics. Many can be helped by special substitution movements or mass movement exercises.

Visceroptosis has received much attention from the point of view of body mechanics. Rest, support, diet and the proper instruction in posture and proper postural function are generally accepted now as the foundation for the management of these patients.

Much of our training of spastic hemiplegia depends on the application of body mechanics.

Brachial neuritis, the scalenus anticus syndrome or the cervical rib syndrome are often postural in origin and can be relieved by correcting the position of spine, head and scapulas.

PERIPHERAL NERVE INJURIES

Major Frank H. Mayfield, MC, AUS, Cincinnati, Ohio

In THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, 44;3;275
March, 1945

RECONDITIONING

Rehabilitation must begin at the time of injury by preventing deformity and fixation of joints. Fractures of bones which require fixation in plaster, in association with nerve injury, are common. However, few require that the finger joints be encased, and this should be avoided. The patient should be instructed to use the unparalyzed hand for passive exercise of the paralyzed part. We have just completed the review of 100 cases of injury to one or more of the major nerve trunks of the hand. In 20 patients of this group, disabling stiffness of the finger joints existed. An analysis of their case histories made it clear that only one important principle of treatment had been violated; namely, they had not been instructed and required to passively exercise the paralyzed extremity.

Passive exercise to the foot is best applied by walking — all patients who can support themselves are fitted with appropriate splints and required to walk. We are convinced that passive exercise supersedes all other forms of physical therapy.

SPLINTS

It is imperative that patients wear appropriate splints to prevent overstretching of paralyzed muscles, and contractures of unparalyzed muscles. An elastic cock-up splint which was developed at Percy Jones Hospital is used for radial palsy. The wire drop-foot brace is used for peroneal paralysis. The airplane splint is worn by all cases with deltoid paralysis. There is no satisfactory splint for median and ulnar palsies. Full leg braces with knee drop locks are used for femoral palsies.

VISUAL EXERCISES IN OPHTHALMOLOGY

Joseph I. Pascal, M.D., New York

In ARCHIVES OF OPHTHALMOLOGY, 33;6;480
June, 1945

All are familiar with exercises which are used to develop and improve central macular vision. It is generally agreed that these exercises do not increase macular acuity in the physiologic sense. The improvement in vision which results in a great many cases is most likely due to an intensification of the psychic phase of the act of seeing. As Dr. Lancaster has so aptly put it in a recent article, "seeing is only half ocular — the other half is cerebral."

Now and then one reads in the lay, and sometimes in the professional, press of eye exercises consisting of wall to wall and floor to ceiling movements. The author thinks such exercises are senseless, for these movements are constantly being made in the ordinary course of daily use of the eyes. What is needed are movements which are not ordinarily made — and these are primarily forced duction or vergence movements in which the eyes are made to move in opposite directions. These exercises build up reserve power, but they are not muscle exercises. They are, rather, procedures for developing smooth neuromuscular pathways, probably akin to conditioned reflexes.

PAINFUL SHOULDER FOLLOWING CORONARY THROMBOSIS

Jackson E. Kress, M.D. and James R. McVay, Jr., M.D.

In THE GUTHRIE CLINIC BULLETIN, 15;1;22
July, 1945

In the cases reviewed by Howard and by Boas and Levy, local physiotherapeutic measures, such as massage, heat and passive and active motion, were found to be effective. In our present series, such measures were followed by cure in three cases after a term interval of from four to ten months; improvement in two, and no change in one. Edeiken and Wolferth, on the other hand, stated that local therapy was ineffectual in their cases but it will be remembered that those cases resembled causalgia and not periarthritis and, as such, probably represent a minority of the cases of shoulder pain following coronary thrombosis reported in the literature. This also applies to those few cases which were relieved by Libman's maneuver or strong pressure over a sensitive point along the brachial plexus on the affected side. Askey, whose cases resembled periarthritis, stated that various types of treatment seemed to have little or no effect and that the process seemed to be self-limited. This view was also advanced by Lippman in his study of periarthritis in general. Thus, it would appear that it is impossible to evaluate the effect of local measures on this condition until further controlled studies are undertaken.

CAUSALGIC STATES IN PEACE AND WAR

Geza de Takats, M.D., Chicago

In THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 128;10;703
July 7, 1945

There is an urgent need for the redefinition of causalgia. Burning pain associated with edema, glossy skin and a local rise in temperature is well known to follow certain partial injuries of the major nerve trunks. This group requires less attention because it is readily recognized and because its existence is not contested since the classic description of Weir Mitchell. Far more important, however, is another large group in which the origin and level of sensory stimulation is not frankly obvious. Such patients are frequently misunderstood or discredited but should be differentiated from patients suffering from purely psychogenic disorders, which occur after trauma following industrial accidents or war injuries.

It is well to look on the sensory pathways as being susceptible of stimulation at any level.

The causalgic state is due to a chronic irritation of sensory pathways producing cutaneous hyperalgesia, burning pain and a local increase in blood flow. Three sensory levels, a peripheral, a spinal and a cortical, can be clinically recognized. The lesion becomes more and more intractable the higher it ascends. In the first stage local infiltration and block of the paravertebral sympathetic nerves are effective. At the second level anterolateral chordotomy has been most helpful. The treatment of the third stage with cerebral tractotomies or removal of the sensory cortex is still in its infancy. Early diagnosis and immediate treatment saves much suffering and eliminates permanent disability. The true hysterical lesion shows no vasomotor changes except those due to immobility.

PHYSIOTHERAPY IN THE POST-OPERATIVE TREATMENT OF GYNAECOLOGICAL CONDITIONS

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In THE BRITISH JOURNAL OF PHYSICAL MEDICINE AND INDUSTRIAL HYGIENE,
8;3;82
May-June, 1945

(1) Treatment after abdominal operations

This should be begun on the day after the operation, and may be summarized as under:

(a) Teach upper chest and costal breathing

(b) Give active foot rolling followed by foot bending and stretching, each about 20 times.

Surgical opinions differ as to the advisability of active foot movements at this early stage, but experience of a large number of cases indicates that they may be given safely and advantageously.

(c) Gentle kneading of the calf muscles and quadriceps contractions may be added to the foot movements. Daily treatment continues until the clips are out, when abdominal and gluteal contractions are added. Exercises such as (i) pressing the thighs together with the legs crossed and (ii) gluteal contractions with outward rotations of the hips, are given for the pelvic floor and abdominal muscles.

(d) At this stage the patient may be rolled on to her side and gentle kneading given over the lumbar and sacro-iliac areas. After the stitches are out a graduated scheme of exercises is introduced, until the patient is finally prepared for getting up by means of foot and leg and abdominal and back exercises, performed in the sitting position with her knees flexed over the side of the bed.

(e) Two or three days later, when the patient has become accustomed to sitting in a chair, trunk exercises such as side bendings and rotations are begun.

(f) The patient is taught to control the tilt of the pelvis while sitting and then in the standing position. The treatment should not be terminated until the patient walks normally and is so accustomed to correct posture that she is conscious at once of any deviation from it.

(2) Treatment after correction of prolapse

Although the physiotherapy is much the same as that outlined for the abdominal operation patients, it cannot be begun so soon, except for the breathing exercises and foot movements.

THE MANAGEMENT OF RHEUMATOID ARTHRITIS

Richard J. Stevens, M.D., Huntington, West Virginia

In THE WEST VIRGINIA MEDICAL JOURNAL,
41;7;192
June, 1945

1. Rest: Rest in bed obviously is essential throughout the acute and subacute phases of arthritis, systemic rest on every hand being considered the most useful single basic factor in treating this disease. In securing local rest for joints, splints of various sorts often are very helpful since they relieve pain and relax spastic muscles, aid in preventing or overcoming contractures, and hasten the absorption of edema and effusion.

2. Analgesics: Analgesics for pain and discomfort consist chiefly of the salicylates.

3. Physical Therapy: Heat is an indispensable aid in the treatment of arthritis. Local applications of heat in any form provides temporary comfort. Wet dressings in acute cases are usually more soothing. Dry heat is more easily used in the form of an electric baker or an electric light cradle. Baking should be given in half hour to one hour sessions twice daily. Diathermy is similarly administered and is only palliative. Ultraviolet radiation with full body exposure is merely a valuable aid in general tonic therapy. Fever therapy provides transient relief of symptoms, especially after the acute state has passed. Generally, results of this procedure have been disappointing. Since it is felt that fever need not be raised above 103 F. to give beneficial results, intra-venous typhoid vaccine usually suffices. Histamine and mecholyl iontophoresis may be of value in treatment to produce temporary improvements; mild fever treatments produce the same results. X-ray therapy has been advocated, but due to conflicting reports its value is uncertain at present.

Massage is helpful if given gently and by a skilled physiotherapist. If used in acute cases it must be with utmost care.

Industrial Health

Committee On Industrial Health — Jos. H. Chivers, Chm., 836 S. Michigan Ave., Chicago 5, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

OCCUPATIONAL DERMATITIS*

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The principles of diagnosis and prevention of occupational dermatitis have been firmly established by many workers in the field, notably Dr. Louis Schwartz, Medical Director of the Dermatoses Investigations Sections of the U. S. Public Health Service. Before discussing diagnostic criteria it is necessary to have some basic conception of the types of etiological agents present in industry capable of producting dermatitis. Occupational dermatitis is dermatitis venenata, so-called "contact" dermatitis, and is caused by contact of a dermatitis-producing agent with the skin. These agents may be of three kinds:

1. Primary skin irritants: These will cause a dermatitis in everybody if they are permitted to act in sufficient concentration and for a long enough period of time.
2. Allergens: These agents produce dermatitis in a certain percentage of people after their skin has become sensitized. Hence they do not produce dermatitis at first contact but do so usually after a lapse of at least a five to seven day period or longer.
3. Substances which have the properties of both, that is, are primary skin irritants and also in a small percentage of people produce an allergic dermatitis. Two are especially notable in industry — chromic acid and formaldehyde.

*Originally presented at American Mutual Industrial Nurses' Conference in Philadelphia and published in Industrial Nursing, June, 1945.

DIAGNOSIS

The diagnostic criteria that may be used in deciding whether a dermatitis is occupational in origin are many, and all factors must be analyzed and correlated to arrive at a correct conclusion.

HISTORY

The history of the onset and course of the dermatitis is extremely important, especially its relation to employment. If a substance is a known primary skin irritant, the dermatitis may come on at any time after the beginning of employment. For instance, in a man with a thin, dry skin a dermatitis may appear within a day or two after the use of strong solvents such as the operation of cleaning parts in naphtha. On the other hand, if the individual is exposed only to an allergen, a lapse of at least five days must occur before the dermatitis will appear unless he has been previously sensitized by employment somewhere else.

It is therefore extremely important that all individuals concerned in the diagnosis of occupational dermatitis be acquainted with all chemicals used in the plant and know their nature as a skin irritant, that is, whether they are primary skin irritants, allergens, or possibly both. This function should be the special concern of both the safety man and the nurse and all knowledge should be made available to the doctor who is in volved in diagnosing and treating the case.

If the patient has a previous history of similar episodes of skin rashes, it would make one tend to believe that the disease is not occupational. On the other hand, the occurence of a rash soon after going to work indicates strongly an occupational origin. If other workers are similarly affected, it strengthens the presumption

that a dermatitis-producing agent exists in the plant. However, when dealing with allergic substances, it is entirely possible for one workman in a large group to become ill where all others are unaffected.

SITE

The appearance of occupational dermatitis is always on the exposed parts. If in contact with a solid or a liquid, it is usually on the hands, forearms, or fingers; if a dust or vapor, on the face and other exposed parts, but the entire body may be affected if the clothes are permeable to the dust or vapor. It is extremely rare for dermatitis to appear away from the site of exposure except in the case of sensitizers, as these also usually start in the area which is directly exposed. However, all skin lesions may be spread to the rest of the body and secondary infection, such as follows scratching, may spread the disease from the exposed parts to others. Careful inquiry into the individual's work habits must be made to ascertain these facts. For instance, a dermatitis on the abdomen may very well be occupational if the bench is moist and saturates the worker's clothes with the solution as he leans against it. In one instance, a dermatitis about the ankles due to alkali was diagnosed as occupational in origin. It did not occur on the rest of the body as the man wore protective clothing but in his work habits was extremely careless and permitted the solution to drip on his trousers. It should also be noted that points of friction are very apt to be the special sites of appearance of the lesions; for instance, the ankles at the shoe tops, the wrists where gloves or sleeves rub against the skin, or the collar line at the neck.

THE APPEARANCE OF THE LESION

In only few instances does the lesion have a characteristic appearance in occupational dermatitis. Most of the primary irritants and allergens produce an acute eczematoid lesion which may go through the stages of erythema, papulation, vesiculation, crusting and eczema. However, in the cases of exposure to oil, a typical folliculitis will develop, especially around the hairy portions of the body which are exposed, such as the back of the hands and the forearms. Chlorinated compounds, both in cutting oils and in the special chlorowaxes, produce a characteristic rash with black heads, acne and cyst formation around the eyes, lobes of the ears, jaw and other portions of the body.

The lesion induced by fat solvents or dehydrating solutions such as lime is characterized by drying, fissuring and cracking of the skin. This may be complicated by secondary infection.

Another type of characteristic lesion is induced by pitch and other coal-tar derivatives, sunlight, etc. This lesion is an overgrowth of the keratin layer of the skin with the development of papillomas which may be benign or malignant. The relationship of these characteristic lesions to the etiologic agent should be constantly kept in mind in making a diagnosis of occupation disease.

COURSE OF THE DISEASE

The course of the disease is also of moment in deciding whether a disease is occupational or not. An occupational disease appears at work, usually improves away from work, and recurs upon return to work. It should be borne in mind that in the case of allergens, an individual may be so sensitized that by simply entering a building in which an allergic material is used a severe dermatitis may result. If the dermatitis does not heal within two months after removal from work, the suspicion should be entertained that it is not occupational in origin or that it is complicated by some other factors.

DIFFERENTIAL DIAGNOSIS

The differential diagnosis in some instances is rather easy, since there is not great likelihood of mistaking occupational dermatitis with the usual types of skin disease, such as seborrheic eczema, pityriasis rosea, etc. The difficult differential diagnosis occurs when the physician meets a dermatitis venenata and must decide whether it is occupational in origin or due to some non-industrial factor such as cosmetics, dyes in clothing or plant allergens. In these instances a patch test may be of great value. A positive patch test is helpful in deciding the diagnosis, but a negative patch test must be read with care, since a great many errors are possible, especially with industrial dermatitis-producing agents. Some of the difficulties are that the skin may be desensitized at the point selected for patch testing or that the concentrations used may not be the same as occurred occupationally or the actual irritant may not have been discovered. Also, it is impossible to reproduce exactly the conditions that exist at

work, such as friction, maceration, heat, etc.

Fungus disease complicates the diagnosis in many instances. It must be borne in mind, however, that an individual may have fungus disease and an occupational dermatitis at the same time. Skin reactions to extracts of the fungi when positive are not of great significance, since most individuals have some fungus disease. Negative reactions, however, are significant, since they indicate that the dermatitis in question is not fungoid. The "phytid" response on the hands to the presence of fungi elsewhere on the body must be borne in mind, since it often confuses the diagnosis.

PREVENTION

The principles of prevention of dermatitis are self-evident if one keeps in mind that we are dealing with contact dermatitis and the irritant or allergen produces the lesion by getting on the skin. The first principle, therefore, is *prevent the material from touching the skin.* The best, most efficient and least cumbersome method is the use of engineering control. Dust, gases, and fumes should be controlled by power ventilation. The placing of a baffle on a machine may prevent the oil from saturating the worker. Analysis of work habits is indicated, since many workers have an undue exposure from faulty or careless work methods. If engineering control or work methods are not feasible, protective clothing may be the answer to the prevention of dermatitis. Clothing must be adapted for the individual worker and should be selected from the standpoint of comfort, wearability, function and also style. The use of protective ointments is probably the most popular method to achieve the desired end, that is, preventing contact of the substance with the skin. When it is realized that in addition to affording protection a skin ointment must also be easily applied, not rubbed off during the work period and easily removed at the end of the work day, it will be realized that a perfect protective ointment is almost impossible. Some of them, however, are of value, but they should be the last method rather than the first one in prevention.

The second basic principle of prevention is *if the irritants reach the skin, wash them off.* Hence personal hygiene of the individual is very important. The use of harsh abrasives, solvents, and other skin irritants in removing the dermatitis-producing agents should be condemned. A good, mild soap with plenty of hot water liberally and frequently applied is still the best method of getting rid of skin contaminants. A program of education should be initiated by the plant medical and safety departments for instructing and supervising the worker in personal skin cleanliness. Sanitary facilities in the plant must be made attractive to invite their use, and sufficient time must be allotted or shifts so staggered that facilities will be used.

TREATMENT

Approach to the treatment of occupational dermatitis depends on two factors: (a) avoidance of further contact, and (b) control of symptoms. Occupational dermatitis is always due to contact with the skin of an external irritant or sensitizer. If repeated or continued contact is prevented, no further injury takes place, and the physiological processes of repair are usually sufficient to heal the lesion. Therefore the first step in treatment usually requires that the individual be removed from his job. In some instances, especially when the lesion is caused by contact with a sensitizer, it may be advisable to keep the worker on the job in order to permit him to "harden," that is become desensitized to the industrial irritant. This should be done with great care under the supervision of a doctor who has the opportunity of seeing the patient frequently. If this is attempted, the worker should be given maximum protection in the form of work clothes, medication and personal hygiene. Workers cannot "harden" to primary skin irritants, and exposure to these materials should be reduced to zero or the worker taken off the job.

The only treatment other than removal from contact is symptomatic to relieve the pain, swelling and itching which are frequent concomitants of the lesion. Only the mildest form of lotions, dressings or ointments should be used. In the acute state when symptoms are severe and the lesion is moist, wet dressings of Burow's solution or boric acid are efficacious, simple to apply and interfere least with the normal healing process. Calamine lotion without phenol may also be used. In the later stages when the lesion becomes dry and symptoms are not as severe boric acid ointment, zinc oxide ointment or calamine lotion may be tried. Strong lotions and

ointments may irritate the lesion and prolong it. If the lesion fails to heal under this treatment, expert care is indicated, and the patient should be referred to a dermatologist.

CORONARY OCCLUSION IN INDUSTRY*

Reluctance or refusal to employ patients with arteriosclerotic heart disease or those who have had myocardial infarction is the policy of many large industrial companies. Controversy, particularly legal, continues over the relationship of coronary occlusion to effort, even though a sizeable portion of medical opinion discounts a casual connection. At present, with industry utilizing every available worker to meet the demands of the armed forces, reconsideration of the matter is in order.

Not every patient recovers sufficiently to return to his job, but on the basis of the observation of 84 Kaiser shipyard employees with infarctions, 75% of whom were manual laborers, Eugene B. Levine, M.D., and Edward Phillips, M.D., of Oakland, Calif., have found that many were able to resume full activity without recurrence of symptoms. Comparative analysis of the records of all cases of coronary occlusion revealed that the incidence of heart failure, subsequent infarction or death is the same whether the individuals who recovered resumed work or not.

Arbitrary standards for permissable work are neither possible nor desirable. Some patients must be assigned to light tasks or to sedentary work, while others are capable of manual labor, the kind and amount limited only by the individual's cardiac reserve as shown by his ability to do the job without producing untoward symptoms. A patient who is improving symptomatically and is steadily approaching normal cardiac capacity will very likely be able to work eventually. Such persons should be returned to useful and productive positions in society as soon as compatible with safeguarding the employer's interest.

A patient symptomatically well, after a lapse of time sufficient for the formation of a firm scar, is ready to resume employment under adequate medical supervision. As a matter of common sense such a patient should not be placed in a position in which sudden failure of one man would endanger the lives and safety of others, or would cause harm to himself, either by fall or by loss of control of machinery.

Of the 84 patients studied, 8 died within four weeks of the first infarction and 20 others failed to return to work. Desire to return was evident in 19 of the 20 but was not fulfilled because of the deaths of 3, an unrelated fracture in 1, and cardiac disability in 15. Only 1 patient failed to report because of nonmedical reasons. Fifty-six patients were re-employed, but 26 were forced to give up work after varying periods: 15 because of cardiac disability, 5 because of second myocardial infarctions which were fatal in 2 instances, 1 because of death without coronary occlusion, and 5 for nonmedical reasons. The other 30 patients were still working at the end of the survey, which covered an average observation period of 11.7 months. Nineteen had returned to the same jobs held before illness — 15 doing manual labor and 4 sedentary work; 11 to jobs different from those held before infarction — 6 doing light physical work and 5 sedentary tasks.

Only 20 of the survivors became completely free of heart symptoms. Of the other 50, 23 had angina pectoris, 12 congestive failure, 13 mild angina pectoris as well as congestive failure, 1 a complete auriculoventricular block and 1 cerebral thrombosis. The last 2 did not return to work. Eleven of the patients with angina pectoris took jobs, but only 2 of the 12 with congestive failure resumed employment, although of 13 patients with mild angina pectoris and congestive failure 7 returned to work. In 20 cases, sequelae of angina pectoris, congestive failure, or both in mild degree, were compatible with continued employment.

More than a year after the first infarction, 32% of the patients who returned to jobs were still working. Eleven patients had 2 myocardial infarctions and 4 returned to their jobs after the second coronary occlusion. One had to stop working after almost a year but the other 3 were working at the end of the survey.

For one reason or another, the condition of 10 patients was not promptly diagnosed. All 10 worked through the critical period of coronary occlusion, each after taking less than a week off for the acute illness. Most of these patients did not consult a physician.

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*Levine, E. B., and Phillips, E., Coronary Occlusion in Industry. Am. Heart J. 29; 588-597, 1945.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

ADAMS COUNTY

E. B. Montgomery of Quincy, who has practiced medicine longer than any physician in the state, was honored by the Kiwanis Club on September 10th. Doctor Montgomery has been in active practice 67 years and is still actively practicing his profession. He is the oldest member of the Adams County Medical Society, joining it in 1879 and has been a member of the Illinois State Medical Society longer than any physician in the state. Speakers at the luncheon were Doctor Harold Swanberg and Mr. Thomas A. Hendricks of the American Medical Association who spoke on "Postwar Medical Service."

BOONE COUNTY

Major Wesley B. Oliver of Belvidere has been discharged from the army after three years of service and is resuming practice in his former office. Doctor Oliver was awarded the Bronze Star Medal last fall by Gen. George S. Patton "for display of fine administrative ability, indefatigable energy and tireless devotion to duty, all of which were of inestimable value in the prompt and efficient evacuation of Third army casualties."

CHAMPAIGN COUNTY

James S. Mason of Urbana, Annie L. Zorger of Champaign, T. Lee Agnew of Ogden and F. S. Diller of Rantoul were presented awards for 50 years of active medical practice at the Champaign County Medical Society meeting of September 13th. Awards were presented by Andy Hall of Mount Vernon.

Lt. Col. James E. Blades of Sidney, after four years in service, has been released and has resumed his practice in Sidney.

CHRISTIAN COUNTY

Lt. Col. R. B. Siegert of Pana, former chief surgeon with the 96th Evacuation Hospital has returned to civilian practice and has reopened his office in Pana.

COOK COUNTY

Capt. Seymour Hershman, of Chicago, Medical Corps, 109th Evacuation Hospital, U. S. A. has been awarded the Bronze Star Medal "for meritorious service in connection with military operations against an enemy of the United States during the period July 17, 1944 to April 28, 1945. Capt. Hershman, serving as Assistant to Chief of Surgical Service, 109th Evacuation Hospital, distinguished himself by his outstanding performance of duty. The high degree of professional skill he displayed, his resourcefulness and loyal, untiring devotion to duty reflect great credit upon himself and the military service."

CLINICAL CONFERENCE

The Chicago Medical Society's Annual Clinical Conference will be held at the Palmer House, Chicago, March 5, 6, 7, 8, 1946. All physicians are invited to attend this Conference and hear the outstanding specialists from all sections of the country discuss subjects of major interest. Make your reservations early at the Hotel.

Lt. Col. James P. Grier, chief of surgery at Gardiner General Hospital, has been discharged and is returning to private practice in Evanston.

Major Samson D. Entin of Chicago has been awarded the Bronze Star Medal "for meritorious service with the 65th Inf. Division in France Germany, Austria for period March 5 to May 8, 1945."

Louis D. Boshes of Chicago, MC USNR has been promoted to Lt. Comdr.

Announcement has been made of the promotion to Captain of Ernest R. Blondis who formerly practiced in Lemont.

The Legion of Merit, recently awarded posthumously to Capt. Jerome D. Solomon, Army

Medical Corps, was presented on September 23rd to his parents. The ceremony was held at Thorne Hall, Northwestern University and speakers included Morris Fishbein and Karl A. Meyer. Captain Solomon died of typhus fever in Guinea in September, 1944. He was awarded the Legion of Merit, America's fourth highest honor, for singular devotion to duty in giving medical aid to men stricken with typhus while he himself was ill.

Louis B. Newman, Chicago, has been promoted to full Commander and will continue as Head of the Department of Physical Medicine and member of the Rehabilitation Board of the U. S. Naval Hospital, Seattle, Washington.

Capt. Carl H. Resnick, Chicago, has been decorated with the Bronze Star Medal for meritorious service in Italy, France and Germany from April 20, 1944 to March 3, 1945.

Capt. Max M. Bernstein of Chicago, a prisoner since the fall of Corregidor has been liberated from a Japanese camp. He formerly was resident physician at Cook County Hospital.

Bernard C. Roloff, welfare director for the Chicago Park District, has been appointed director of industrial programs for the Tuberculosis Institute of Chicago and Cook County.

Asa Bacon, who retired in 1941 after serving more than 30 years as superintendent of Presbyterian Hospital, died on September 11th in Dowagiac, Michigan, where he had made his home since his retirement. He was a former president of the American Hospital Association.

Ray E. Brown, former superintendent of the North Carolina Baptist Hospital, Winston-Salem, North Carolina, has been appointed assistant superintendent of the University of Chicago Clinics. He will be assistant to Doctor G. Otis Whitecotton, superintendent.

The army has announced the promotion from Major to Lt. Colonel of Ralph Hess Kunstadter of Chicago.

Mrs. Ben Humphries Gray has succeeded Audrey Hayden Gradle as Executive Secretary of the Illinois Society for the Prevention of Blindness.

Samuel M. Feinberg of Chicago, Chief of the Division of Allergy, Northwestern University Medical School was a member of the faculty presenting an Orientation Course in Clinical Allergy at the School of Medicine, University of Pittsburgh, in October, for veterans, service men and residents. The course is sponsored by the American Academy of Allergy.

The veteran 25th portable hospital, numbering many Chicagoans and downstate Illinoisans, jumped from ships to become the first American hospital in southern Japan. Every doctor but one is a Rush Medical College graduate. Major Frederick dePeyster of Winnetka is in command of the hospital which includes in its staff Captain Hugo Baum of Chicago and Captain Edward Murphy of Dixon.

Stewart C. Thomson on September 10 resumed his activities as assistant dean of the Loyola University School of Medicine. Dr. Thomson was recently released from service, after serving for the past seventeen months as chief of the collection branch in the medical intelligence division of the preventive medicine service and as the liaison officer between the Office of the Surgeon General and G-2, War Department General Staff.

An institute to apply the discoveries of atomic research to such problems as cancer, heredity and growing old has been established at the University of Chicago. Raymond E. Zirkle, Ph.D., Springfield, Ill., a botanist who has specialized in the effect of radiations on living organisms, will be in charge of the new department, the institute of radiobiology and biophysics. Members of the new institute will work in cooperation with the institute of nuclear studies. This arrangement is part of he university's plan to further fundamental research in fields which were kept secret or neglected during the war.

A special program will be held October 29 at the Chicago Lying-In Hospital to observe the fiftieth anniversary of its founding. The hospital was established in 1895 by Dr. Joseph B. De Lee. In addition to clinics being conducted by members of the staff, the following will participate: Dr. Frederick C. Irving, Boston, A Bood Bank for a Lying-In Hospital; Dr. Edwin C. Hamblen, Durham, N. C., Some Contributions of Endocrinology to Obstetrics and Gynecology; Dr. Norman F. Miller, Ann Arbor, Mich., Hysterectomy — Therapeutic Necessity or Surgical Racket?; Dr. Hendricus J. Stander, New York, Teaching of Obstetrices and Gynecology.

Clarence J. Zurfli has recently been promoted from Major to Lieut. Colonel. Col. Zurfli is attached to the 361st Station Hospital.

The 228th Station Hospital, Sherborne, England, after caring for 22,924 patients, thousands

of whom were battle casualties, has completed its work in England. Among those who helped in the operation of the hospital was Major Irving E. Steck. Major Steck was chief of the medical service.

Captain John M. Staron has recently returned from overseas duty and is now stationed at Schick General Hospital, Clinton, Iowa.

Lieut. Col. H. Ivan Sippy, formerly of the 13th General Hospital, was in October, 1944, appointed Chief of the Medical Service of the 248th General Hospital, at that time stationed in New Guinea. Since March, 1945, he has been serving as Commanding Officer of the unit, which is now established in the Manila Area.

Lt. Col. James J. Callahan formerly assigned to the 4th Service Command at Atlanta, Ga., was recently assigned to the Orthopedic Branch, Surgical Consultants Division, Office of the Surgeon General, Washington, D. C.

Lt. Col. Earle I. Greene has been awarded the Bronze Star for meritorious service in connection with military operations, as Chief of Surgical Service, 35th Station Hospital, European Theater of Operations from July 15, 1943 to May 8, 1945. During one emergency he personally operated on the more seriously wounded for seventy-two successive hours and saved many lives. Recently Col. Greene met his brother, Major Jos. M. Greene, in Paris, after not having seen each other for more than three years.

Capt. William H. Borkenhagen has been awarded the Bronze Star for meritorious service in connection with military operations against the enemy during the period from June 14, 1944 to April 17, 1945 in France, Belgium and Germany. Capt. Borkenhagen displayed expert surgical skill and mature judgment as battalion surgeon. Capt. Borkenhagen is attached to the 552nd Anti-Aircraft Artillery, Automatic Weapon Battalion.

Capt. Lawrence S. Mann returned to the United States after 18 months of service in the European area including England, France, Belgium, Holland and Germany. Attached to the 6th Engineer Special Brigade supporting the 29th Division of the 1st Army he was one of the first doctors to land in the invasion of Normandy.

Stephen A. Zieman,USNR has recently been promoted from Lt. Comdr. to Commander. Comdr. Zieman is Assistant Editor of the U. S. Naval Medical Bulletin, Bureau of Medicine and Surgery, Navy Department, Washington, D. C.

CRAWFORD COUNTY

The Crawford County Board of Supervisors recently unanimously adopted a resolution commending Dr. L. P. Sloan, Oblong, for his service as a Director of the Crawford County Sanatorium Board and requested the Chairman to reappoint Dr. Sloan for a term of three years.

The Crawford County Medical Society met on September 7th. The program was devoted to a discussion of the sulfa drugs. L. B. Highsmith read a paper on "Use of Sulfa Drugs in Treating Respiratory Diseases" and L. P. Sloan gave a paper on "Abuses of Sulfa Drugs in Treatment of All Diseases."

DE WITT COUNTY

Owen Nowlin of Farmer City has been promoted to a full Commander in the Navy and has been assigned to the Edenton Naval Air Station, Edenton, North Carolina.

Harmon D. Seeley of Clinton has been promoted to Major. He has been located at a hospital in Germany but recently was transferred to an evacuation hospital in France.

DU PAGE COUNTY

Clarence B. Wyngarden of Wheaton has been promoted from First Lieutenant to Captain at Camp Maxey, Texas. He served as surgeon at Wheaton College from 1939 to 1943 and at Williams Military Academy from 1941 to 1943.

HENRY COUNTY

The Kewanee Physicians Club has sponsored the examining of first grade pupils in the Kewanee public schools.

IROQUOIS COUNTY

J. M. Roberts, Watseka physician, has been promoted to Commander in the Navy. He is now the senior medical officer at the Naval Air Station in French Morocco.

JACKSON COUNTY

William T. Felts has reopened his office in Carbondale after serving three years with the U. S. Army Medical Corps.

JEFFERSON COUNTY

Col. Wilford F. Hall, son of Dr. and Mrs. Andy Hall of Mt. Vernon, has been assigned as headquarters surgeon of the 9th Air Force in the Army of Occupation in Germany. Colonel Hall is a graduate of Washington University School of Medicine, 1928 and in 1935 he was graduated as a flight surgeon at Randolph Field, Texas.

JO DAVIES COUNTY

Herbert Frederick Chwatal of Galena has been promoted to Lt. Colonel in the U. S. A. Medical Corps.

KANE COUNTY

Joel L. Deuterman, Elgin, has been advanced to the rank of Colonel at Madigan General Hospital, Fort Lewis, Washington.

KANKAKEE COUNTY

Chester A. Perrodin, formerly of Kankakee, a Lt. Comdr. MC USNR expects to be stationed in Shanghai and will leave from San Francisco in the near future. Comdr. Perrodin left Kankakee about a year ago to rest and get a "build-up" in Van Nuys, California, prior to applying for his commission.

LAKE COUNTY

Lt. Comdr. Aaron A. Topcik of Waukegan has been promoted to a full Commander in the USMC. He participated in the battle of Okinawa with the Marine Corps and is now stationed on Guam.

LA SALLE COUNTY

Major E. G. Barton of Streator has returned from overseas and will report to Camp Bowie, Texas, for reassignment. Major Barton has been in service three years and wears the ETO ribbon with two battle stars and a Bronze Star medal for heroism in the battle line in Alsace, France. He also wears the Combat Medics' Badge, awarded doctors in the front line trenches.

LEE COUNTY

For meritorious service and bravery, particularly in the 37th Division's campaign in Manila, Lt. Col. William T. Holladay, Dixon, has been awarded the Legion of Merit.

Clifford D. Hartman of Sublette, Lt. Comdr. in the Navy at the Naval Air Technical Training Center at Millington, Tennessee, has been visiting his family. When released from service, he will resume active practice of medicine in Sublette.

McLEAN COUNTY

C. R. Ahroon of Bloomington, Lt. Comdr. in the Navy, has had the unusual experience of performing an emergency appendectomy recently aboard a ship at sea, while a typhoon was in the offing. The sick bay on the ship is in the fantail. In heavy weather the up and down movement of the ship is nearly equal to its forward movement. It was under such conditions that Comdr. Ahroon had to perform the operation while the typhoon hit in full fury. The patient "weathered the storm."

MACON COUNTY

Maurice Murfin, son of Dr. Walter D. Murfin of Decatur and grandson of the late Dr. W. W. Murfin, has been released from military service and has become associated in surgery with Doctor Ciney Rich in Decatur.

MADISON COUNTY

William S. McGinnis of Alton, after three years' service in the Army Medical Corps, has been released from service and has returned to Alton to practice.

MERCER COUNTY

Lt. Col. Leon E. Robinson of Aledo, first Aledo physician to enter the armed forces in World War II and the first to return after service in the combat areas, has received his honorable discharge and is resuming practice in his home city.

MORGAN COUNTY

The Morgan County Medical Society held its first meeting of the season at Jacksonville on September 13. Dr. S. N. Clark spoke on "Functional Nervous Diseases" and case reports were given by Doctors Paul Allyn of Waverly, J. W. Martin of Murrayville and R. R. Jones of Winchester.

PEORIA COUNTY

James W. Sours of Peoria has been made a full Commander and is now serving on Okinawa at a hospital.

Walter W. King, Major USA Medical Corps has been awarded the Bronze Star medal at Winter General Hospital, Topeka, Kansas, where he is now stationed as chief of the surgical service. The citation accompanying the medal read: "For meritorious service in connection with military operations against the enemy as surgeon, general surgical team No. 5, third Auxiliary Surgical Group, from June 6, 1944, to October 16, 1944, in France and Belgium. Although the arrival of medical equipment and supplies were delayed during the landing of his surgical team upon the invasion beach on D-day, Major King, displaying outstanding initiative and marked professional ability, organized his group and gave immediate treatment to battle casualties. During subsequent operations, he displayed tireless effort and worked many hours each day to bring expert medical service to seriously wounded patients."

Honored guest at a dinner meeting of the Peoria Medical Society September 18th at the Pere Marquette Hotel, Peoria, Doctor Sandor Horwitz, district health officer who has prac-

ticed medicine for 50 years, was awarded a 50 year pin and certificate by the Illinois State Medical Society and presented with a scroll signed by members of the local society. Presentation of the pin and certificate for "continued practice in the medical society of Peoria county and the Illinois State Medical Society" was made by Doctor Charles P. Blair of Monmouth.

ROCK ISLAND COUNTY

Doctor Daniel Paul, Rock Island, has been named a director of the Rock Island Chamber of Commerce, representing the Rock Island County Medical Society.

VERMILION COUNTY

Lt. Comdr. Jean Moore of Danville has been promoted to the rank of full Commander and is now stationed at Greencastle, Indiana, where he is physician in charge of the V-12 Units at DePauw University, State Teachers College of Terre Haute, Wabash College and the Indiana School of Medicine and Dentistry.

ST. CLAIR COUNTY

The five sons of Doctor and Mrs. Charles E. Eisele, 3806 Caseyville Avenue, East St. Louis, now in the army follow the professional footsteps of their father. They are Capt. Owen J. Eisele who is in Czechoslovakia; Capt. Adrean S. Eisele, Commander of Medical Detachment of 748th Military Police; Capt. Vincent G. Eisele, with the 92nd Field Hospital on Luzon; 1st Lt. Matthew B. Eisele, Medical reserve officer and at present resident physician in OB and GYN. at St. Mary's Hospital in Clayton, Mo.; Private Justin Eisele, 3rd year pre-medic student at St. Louis University with the signal corps unit in the Philippines. Capt. Owen Eisele, former staff physician at St. Mary's Hopital, East St. Louis has just been awarded the Bronze Star Medal for heroic service in connection with military operations against the enemy in Germany April 2, 1945.

A joint meeting of the St. Clair County Medical Society and the Illinois Heart Association was held at St. Mary's Hospital, East St. Louis on October 4th. A cardiac clinic was held in the afternoon by Chauncey C. Maher of Chicago and Harry A. Durkin of Peoria, President of the Illinois Heart Association. Doctor Maher gave the address of the evening on "Treatment of Cardiac Failure with Edema."

STEPHENSON COUNTY

Major Everett W. Brott of Lena has been awarded the Bronze Star Medal for meritorious service in connection with military operations against the Germans.

TAZEWELL COUNTY

Lt. Comdr. L. F. Teter of Pekin, has gone to San Francisco to resume his duties after a visit with his family.

VERMILION COUNTY

Physical examinations for pupils of the first and fifth grades in the grade schools and freshmen students in Danville High School by members of the Vermilion County Medical Society are under way.

WILLIAMSON COUNTY

Capt. M. M. May of Marion has been awarded the Bronze Star Medal and the Meritorious Service Unit Plaque, Captain May has been stationed in Balzano, Italy, but is expecting to return shortly and to resume his practice in Marion.

DEATHS

WILLIAM S. BROWN, Elgin; University of Illinois College of Medicine, 1894. Practiced medicine in Elgin since 1896 and veteran of World War I. For many years, chief of staff of Sherman Hospital. Died of heart attack, aged 77, August 17th.

FLETCHER L. CROCKER, Pontiac; Miami Medical College, Cincinnati, Ohio, 1891. Practiced medicine in Pontiac for 40 years. Died at St. James Hospital, Pontiac, August 31st, aged 79, following an illness of 2 days.

CHARLES JOHNSTON DAVIS, Deerfield; University of Illinois College of Medicine, 1902. Veteran of World War I; had practiced in Deerfield over 40 years specializing in radiology. Died in his home Sept. 15th, aged 71.

WALTER J. FAHRNER, Joliet; Northwestern University Medical School, 1905; practiced medicine in Joliet since graduation; member of one of Joliet's oldest practicing medical families. Died following an operation in St. Joseph's Hospital Sept. 4th at the age of 64.

WILLIAM ARVEL GOTT, Peoria; Chicago Homeopathic Medical College, 1901. Practiced medicine in Peoria 25 years. Served in the medical corps in World War I. Died following a brief illness Sept. 18th, aged 69.

FRANCIS MARION HILLER, Carterville; St. Louis College of Physicians and Surgeons, 1909. Died of a heart attack while attending a County Fair, Aug. 31st, aged 66.

GRACE FRITH JERGER, (not in active practice,) Chicago; University of Illinois College of Medicine, 1904. Died Sept. 18th at the age of 67 years.

LIEUT. VICTOR HERBERT KARPASS, Chicago; Univer-

sity of Illinois College of Medicine, Chicago, 1935; member of the American Medical Association and the Missouri State Medical Association; interned at St. Mary's Hospital in Minneapolis and the Woodlawn Hospital in Chicago; served a residency at the Anna State Hospital in Anna, Ill.; began active duty as a first lieutenant in the medical corps, Army of the United States, on Feb. 24, 1942; awarded posthumously the Distinguished Service Cross for heroism; killed in action in Africa, Nov. 8, 1942, aged 33.

HENRY RANDAL KENNY, Golf; Trinity College, Dublin, Ireland, 1909. Was Chicago surgeon for 35 years; formerly chief of staff of John B. Murphy Hospital and staff member of Alexian Brothers, Columbus and Illinois Masonic Hospitals. Died, aged 59, on Sept. 9th.

ARTHUR C. KLEUTGEN, Chicago; Northwestern University Medical School, 1902. Was Captain in the medical corps in World War I. Formerly instructor in medicine, physical diagnosis at Northwestern University Medical School, associate professor of medicine at Loyola. Died, aged 66, September 13th at Woodlawn Hospital.

BURDETTE E. LA DUE, Sterling, retired; Rush Medical College, 1885. Had practiced medicine at Plano, Tampico, Ottawa. Died at the age of 82 on Sept. 9th.

ROBERT ANTOINE LE TOURNEAU, Chicago; Northwestern University Medical School, 1895. On staff of Jackson Park Hospital; physician and surgeon in Chicago for 50 years. Died Aug. 29th, aged 83.

LT. CMDR. THOMAS W. MILLER, USNR, formerly of Alton; St. Louis University School of Medicine, 1927. Survived four naval attacks against the Japs. On leave in San Francisco was killed in an automobile accident August 29th. He was 43 years of age.

WILLIS MOORE, Vermont, retired; Northwestern University Medical School, 1890. Practiced in Chicago for many years. Died at the age of 82 on Aug. 17th.

WALTER PRESTON SCOTT, Lexington; Keokuk Medical College, 1898. Died at Mennonite Hospital, Bloomington, Sept. 16th; had suffered a broken leg a week before death. He was 80 years old.

EUGENE ADELBERT SULLIVAN, Amboy; University of Illinois College of Medicine, 1899. Had practiced medicine in Amboy since graduation. Died Sept. 15th, aged 69.

JAMES WILSON WALLACE, Aledo; Northwestern University Medical School, 1906; postgraduate work in New York and Chicago. Had practiced medicine in Aledo since graduation. Died August 25th following injuries suffered when he stumbled and fell on the steps of his office. He was 64 years old.

CANCER OUTLOOK BETTER

The mortality from cancer, particularly among women, is beginning to come under control. This is indicated by the experience among the many millions of Industrial policyholders of the Metropolitan Life Insurance Company and is confirmed by other sources. In the past decade, for example, the age-adjusted death rate from cancer among insured white females dropped 11 percent at ages 1 to 74 years; virtually every important age group shared in the improvement. The current mortality from the disease among women in the broad age range 35 to 64 is the lowest in a third of a century, having dropped by one fifth during that period.

Among white male policyholders, too, a favorable indication is noted. The distinctly upward trend which had been manifested for many years has been stemmed. In fact, during the past decade, at no age beyond 25 years has the cancer death rate among these men shown any increase, and at some age periods the mortality has tended downward recently.

That the organized movement to control cancer is bearing fruit is evident from the fact that people, and more especially women, are seeking diagnosis and treatment earlier in the course of the disease, when the chances of cure are best. For example, among the patients at the cancer clinics in Massachusetts, the average delay between first symptoms and visit to physician was reduced from somewhat more than six months in the period 1927 to 1935, to 3.3 months in 1943.

To give further impetus to this movement, the Metropolitan Life Insurance Company is conducting a special campaign during October. At that time, the Company's more than 20,000 Field Representatives, in cooperation in many communities with official and voluntary agencies, will distribute to practicing physicians a special packet of new information on cancer. Included will be the American Cancer Society's booklet, "The General Practitioner and the Cancer Patient"; a reprint of recent studies of cancer mortality prepared by the statisticians of the Metropolitan; a reproduction of the Company's educational advertisement on cancer, "Cancer Has Its Hopeful Side!," appearing during October in National magazines with a combined circulation of about 30,000,000 readers; and a copy of the Company's new leaflet for laymen, "There is Something *You* Can Do About Cancer." As part of this "message of hope about cancer," Metropolitan Field Representatives will endeavor to place the latter publication in more than one million homes. In addition, these representatives will place in prominent locations in their communities 6,000 window cards urging early diagnosis of cancer.

Prompt diagnosis of tuberculosis is important to the patient, family and community. Every suspected case should be cleared of suspicion as quickly as possible by being proved innocent or guilty of harboring the disease. The Modern Attack on Tuberculosis, Henry D. Chadwick, M.D., and Alton S. Pope, M.D.